JUNE, 1953 • 20c

Better Farming Methods

For County Agents, Vo-Ag Teachers, Soil Conservationists, and Extension Specialists

On the Cover

Wesley McCoy, left, county agent, Benson, Minn., and James Kinney, editor, Swift County Monitor

Make Your Slides Worth-While . . . page 14

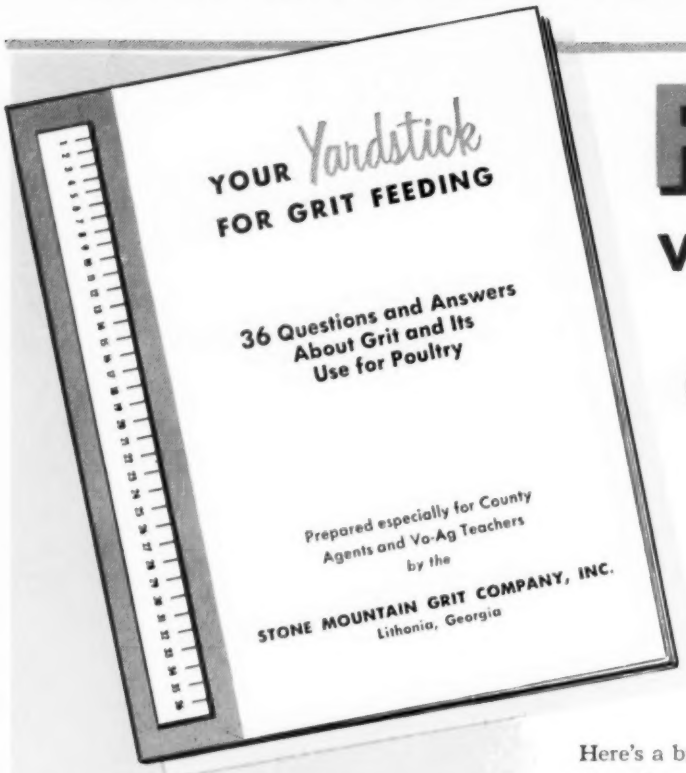
Tips on Teaching Farm Management page 36

Television . . . Tailor-Made for Agriculture page 40

Teach Farmers Good Soil Practices page 44

Business Magazine for Leaders who TRAIN and ADVISE Farmers

BE SURE YOU GET YOUR COPY



FREE to VO-AG TEACHERS and COUNTY AGENTS

to help you answer your poultrymen's questions on GRIT!

CONTAINS ANSWERS TO THESE QUESTIONS—and many more!

- **Why do chickens and turkeys need grit?**
- **Do birds naturally crave grit?**
- **Why should grit be of the right hardness?**
- **Why should grit be insoluble?**
- **How powerful is the gizzard?**
- **Why should grit have many grinding surfaces?**
- **How should grit be fed?**
- **How does insoluble granite grit help save feed?**

Here's a brand new yardstick that will help you measure the value of grit to your poultry raisers.

"Your Yardstick for Grit Feeding" contains latest answers to the 36 questions most commonly asked about grit. Briefly and to-the-point, it tells why grit should be fed . . . how it should be fed . . . amount that should be fed.

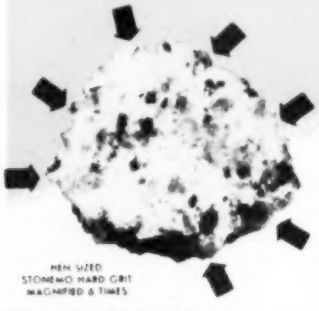
It gives you authoritative facts right at your fingertips which you can pass on to your poultrymen—farmers—students—4-H members. Facts they need to know to help step up feed efficiency . . . get more meat and eggs from every pound of feed . . . make greater profits!

This valuable treatise is free to vocational agriculture teachers and county agents. Get your copy. Ask for one for your assistant, too. Also for your library, if you'd like.

WRITE FOR YOUR COPIES TODAY

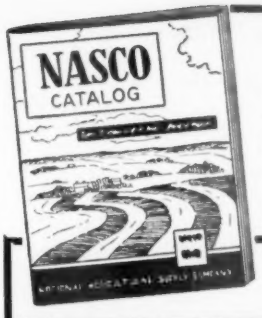
● Send a card or letter and ask for "Your Yardstick for Grit Feeding." State number wanted. Get this timely bulletin—while it lasts! Write today! Address Box BFM-6.

STONE MOUNTAIN GRIT COMPANY, INC.
Lithonia, Georgia



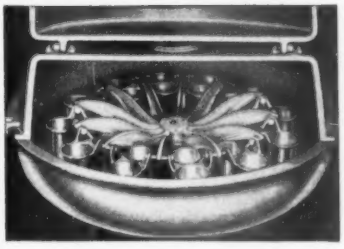
MEN SIZED STONEMO HARD GRIT MAGNIFIED 6 TIMES

STONEMO the Grit with the "EXTRA GRINDING SURFACES"



Go Shopping At Your Desk

Save the time you spend looking for specialized agricultural items which you need in class and demonstration work. Use the new NASCO catalog—you'll find everything you need—at substantial savings. Shop the NASCO way. IMPORTANT . . . NASCO'S NEW CATALOG Now Being Mailed. If you do not receive yours by June 10th, write us for a copy.



FAST DELIVERY ON JALCO TESTERS

Jalco testers are precision made and come in self contained units guaranteed for accuracy and durability. The motor located in the bottom of the bowl is fully protected against acid or moisture.

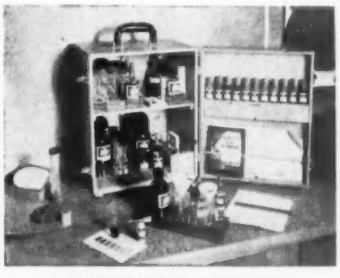
Jalco testers are noted for their reliability and years of trouble-free service.

B47-40A Jalco Baby Electric, 12 bottle size **$42.00**

X10-12 Jalco Baby Hand Model, 12 bottles **$30.00**

B-45-48 Jalco Electric, 48-bottle size with brake and electric heater..... **$72.00**

If your school needs a new tester, order a Jalco today from this ad or from the new Nasco catalog just out.



LaMOTTE SOIL TEST KITS

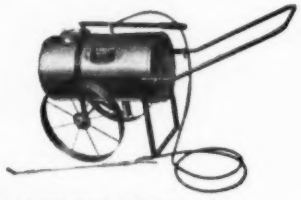
Nasco is proud to distribute the line of LaMotte Soil Test kits. Listed here is description and cut of their most popular kit. For a full line of soil test kits see pages 129 to 134, Nasco catalog No. 20.

LaMOTTE STANDARD COMBINATION TESTER

The most widely used LaMotte Combination Soil Testing Set is the Standard 4-test model described here. This unit contains tests for pH (soil acidity), nitrate nitrogen, available phosphorus, and available potash. Reagents, glassware and color charts for each test are contained in individual racks which may be removed from the set and located on the work table at the convenience of the operator. Sufficient reagents are supplied with each set to make approximately 100 runs of each test. Complete instructions are supplied with each set and in addition the LaMotte Soil Handbook giving the soil reaction preferences of numerous plants, shrubs, etc. Replacement parts will be shipped promptly upon order.
F117-T-1004. Price complete..... $39.85

DAISY CATTLE MARKERS

Large 2" solid brass plates with 40" chains. Stamped numbers. Ring fastener. Specify numbers desired. **Order C120, $13.25 per dozen, postpaid.**



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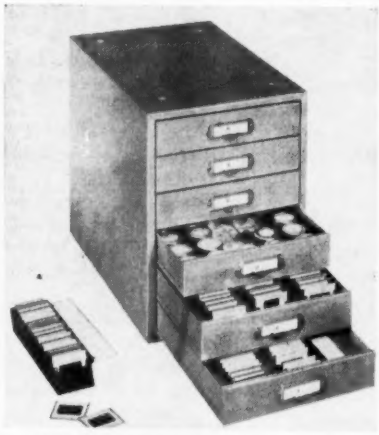
Similar in operation to knapsack sprayers. 15-gallon capacity. Easily pumped. Large compression chamber reduces frequency of pumping. Working parts left out. Galvanized tank, brass cylinder. Steel wheels. Wt. 60 lb.
H174-500 Champion Wheelbarrow Sprayer $43.50

HOT SHOT ELECTRIC STOCK PRODS

Helps you load and move livestock harmlessly by means of a controlled electric shock.

$7.95 complete with 5 batteries



NEW FILMSTRIP AND 2"x2" SLIDE LIBRARY PLAN

Not just a cabinet . . . it's a complete functional Library Plan for filmstrips and 2 x 2's . . . Storage space for 180 filmstrips and 384 glass slides (or 1,152 Readymounts) . . . Two drawers are each equipped with six plastic lift-out, magazine-type, indexed tray-files. Each drawer holds 192 glass slides or 576 Readymounts in individual, identified compartments . . . easy to file and find.

Sturdy cabinet made of heavy-gauge steel, giving safe protection . . . finished in beautiful hammeroid gray. A complete file for many Vo-Ag departments. Only $53.95 in the new Nasco catalog. Film library plan included.

RADIANT PROJECTION SCREENS

The World's Finest

Known the world over as the finest, Radiant Projection Screens are today better than ever. New designs to make them more beautiful and functional . . . new utility to make projection easier, and a new development in screen fabric—VYNAFLECT, the glass-beaded fabric that gives even longer-lasting brilliance. It's FLAME-PROOF, it's MILDEW-PROOF and WASHABLE. This remarkable new fabric will stay white indefinitely and give clearer, brighter, more lifelike pictures than have ever before been seen on any screen. There's a Radiant Screen for every projection need.

"DLS" Screenmaster

Flame-proof, mildew-proof, washable VYNAFLECT fabric assures projection excellence. Sets up in seconds . . . light foot-pressure on release tab. Auto-locks permit instantaneous adjustments to size and height you want. Precision engineering and rugged construction, 10 year guarantee.
30" x 40", $24.95; 40" x 40", $26.95; 37" x 50", $32.95; 50" x 50", $34.95; 45" x 60", $38.95; 60" x 60", $44.95; 52" x 70", $47.95; 70" x 70", $54.95.
For daytime projection where complete room darkening is impossible, order Radiant Classroom screen 40" x 40", $39.75; 30" x 40", $37.75; 20" x 20", $29.75; Classroom Screen stand, $12.95.

USDA FILMSTRIPS

Only 55c and 60c each

Don't Pay More Than The Official Price

They are wonderful buys and practical teaching aids. Just be sure you get "official" films when you buy; get them from Nasco. Nasco USDA films are produced by the official processor, and sold at official USDA prices. They are the best quality and up-to-date. In fact, visual aids specialists carefully screened USDA films for the Nasco catalog.

GET THEM FROM NASCO

Vo-Ag and veteran instructors are buying filmstrips from Nasco in quantity. You, too, can have a low cost filmstrip library. Select from the long list of USDA titles and hundreds of other Nasco filmstrips. Write today if you don't have a Nasco catalog.

National Agricultural Supply Company

FORT ATKINSON, WISCONSIN

Better FARMING METHODS

Business Magazine for Leaders Who TRAIN and ADVISE Farmers

Published exclusively for
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Business Magazine for Leaders Who Train and Advise Farmers

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Just Between Us

MANY TIMES I'VE been asked by readers of Better Farming Methods: "Since you charge no subscription price to the magazine, who pays the bills?"

The answer is, the money that advertisers pay to present their message to you in the pages of the magazine.

You are probably more familiar with magazines that charge a subscription price.

Yet, it is probably not commonly known that most publishers spend more money acquiring a subscription to their magazine than they get in the subscription price itself.

This is very simply explained. Returns from mailings to lists of people that might be interested in any given magazine usually are very low. Perhaps, to get more subscribers, he must send out a hundred letters. So you have all that added expense of sending to people circulation letters trying to get them to subscribe.

So, with few exceptions, advertising in most magazines is the primary source of income.

That is why most publishers of magazines try to get readers to mention, when writing to companies, that they saw their advertisement in, say, Better Farming Methods.

Such mention is important, both to publisher and advertiser.

CHECK ME IF I'm wrong, but the next issue of Better Farming Methods, July, will feature the Fifth Summer Buying Guide that we have published for the benefit of all ag leaders.

I have often wondered how much you readers have actually used this Buying Guide. There constantly arises the question: Is it of help to them? Or, would they rather see regular editorial material of more interest to them?

Anyway, it will be coming your way in July, revamped just a bit, changed a little here and there, but all for the better, we hope.

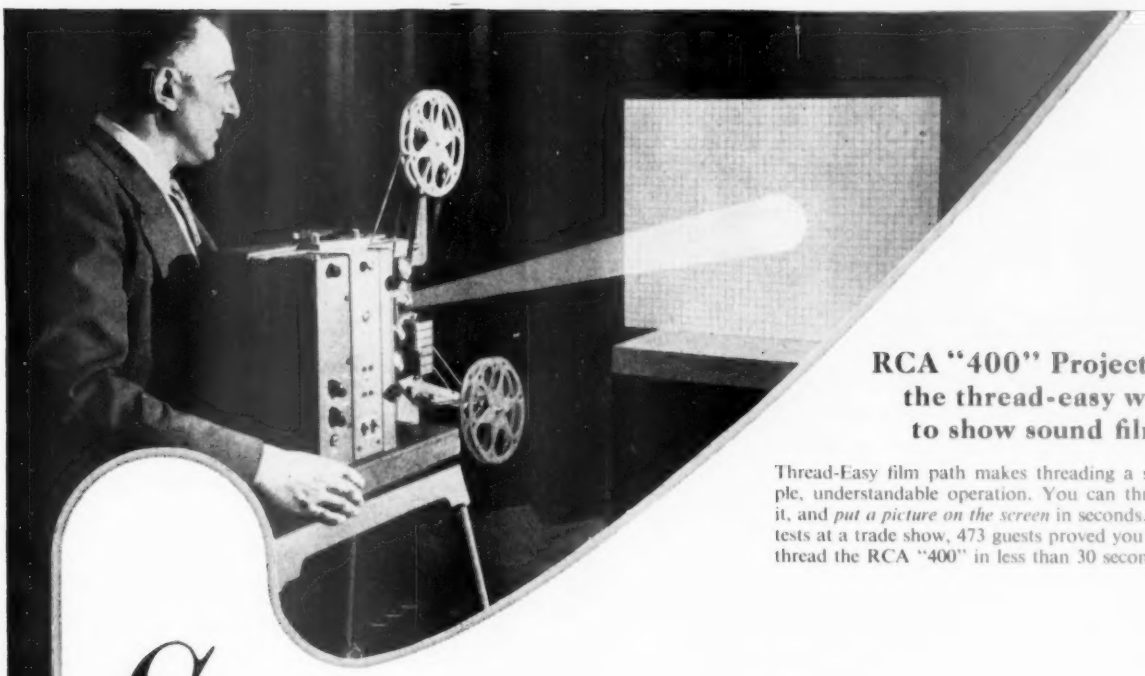
By the way, if you have used it, or if you haven't, why not drop me a line and let me know?

FEATURES IN THE July issue will include:

1. How To Use Color In The Farm Shop by Dr. Michael O'Brien, University of California. He will tell how to paint various areas and farm shop equipment from the safety standpoint.

2. A report by Robert O. Gilden, University of Wyoming, on a farm accident and safety survey made in that state.

3. Harold B. Swanson, extension editor, University of Minnesota, will tell how county agents can best use visual aids in their work.



RCA "400" Projector the thread-easy way to show sound films

Thread-Easy film path makes threading a simple, understandable operation. You can thread it, and *put a picture on the screen* in seconds. (In tests at a trade show, 473 guests proved you can thread the RCA "400" in less than 30 seconds.)

Steadiest way to see a picture

Floating operation of the RCA "400" keeps your picture steady on the screen. Precision-cut gears run smoothly to virtually eliminate "jump" and "weave" of projected image. Husky, low-speed motor maintains even speed for smooth projection.

(Actual steadiness tests prove the RCA "400" has reduced vertical "jump" to ½ of 1%—horizontal "weave" to 1/10 of 1%—exceeding motion-picture engineers' standards two to three times.)

For steady projection, tell your RCA Dealer you want the RCA "400" 16mm sound projector.

Check these 6 important advantages of the RCA "400" Projector

1. **Thread-Easy film path for 30-second threading**
2. **Low-speed induction motor for quiet operation**
3. **Floating sprocket shoes for gentle film handling**
4. **Husky motor, nylon gears for long-term dependability**
5. **Simplified design for 2-minute set-up, 3-minute pack-up**
6. **RCA-engineered sound system for superb reproduction**

For more information MAIL COUPON NOW

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Please send me your new, free booklet, *RCA "400" Senior and Junior Sound Film Projectors.*

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There's grass in your future

Future Farmer and 4-H Club leaders are teaching many new things about farming practices. One big new idea is that grass is just about the most important crop grown. It provides the best and cheapest feed for livestock. Increased yields of forage mean increased income and greatly reduced feeding costs.

Pasture, like any crop, depends on the soil on which it grows. Poor land grows poor grass—fertile land produces profitable grass. In other words, grass needs a balanced feeding of growth elements just as steers, hogs, or poultry flocks need a balanced ration.

Swift & Company, maker of PASTURGRO, the specialized plant food for grass, has examined the nation's pasture situation carefully. Startling facts came to light as a result of this study. It was found that one dollar invested in Pasturgro would produce *seven* dollars in meat or milk. Few investments pay as well. Pasture feeding through the use of Pasturgro fits into the national needs too.

Food production experts estimate that American farmers and ranchers will have to increase food production by 25% in the next 15 to 20 years to keep pace with our growing population. More and better grass will be needed to keep meat supplies up to present standards. That's why we say—"There is grass in your future."

Your friendly Authorized Swift Agent or dealer has, or can get for you, information on pasture improvement or grassland management. Visit with him soon. He can give you authentic information on the returns farmers can expect to get from feeding pastures with PASTURGRO.

KEEPING UP IN Agriculture

Colleges

FEEDING SOWS—Gains made by sows during lactation are costly gains, according to experimental work conducted by the University of Missouri. The feeding trials indicated that limited-feeding of sows during the nursing period gives most economical pig gains. Four groups were studied, one being self-fed, another full-fed by hand, the third limited-fed, and the fourth full-fed by hand. Of the four feeding methods, limited feeding gave the lowest cost per hundred pound of gain.

PELLETS FOR STEERS—University of Nevada experiments indicate promising results for increasing gains in steers by the use of stilbesterol pellets. Investigations conducted at other experiment stations have shown that pellets of stilbesterol implanted beneath the skin of the ear, produce remarkable gains in beef cattle and lambs. Diethyl stilbesterol is a synthetic estrogen—a hormone naturally secreted which controls the reproductive cycle of animals.

BEES—Studies have been made by the Texas Agricultural Experiment Station during the past four years of the toxicity to honeybees of the organic insecticides most widely used in the South for the protection of field crops. The increasing order of toxicity to bees of several insecticides widely used on field crops is: toxaphene, DDT, chlordane, BHC, 3-5-40, aldrin, dieldrin, parathion, and calcium arsenate. Colonies of bees should be located at a considerable distance from fields to which insecticides are to be applied.

PHOSPHORUS IN HAY—Beef cattle fed alfalfa hay high in phosphorus gained 2.10 pounds daily, compared with .53 pound for similar cattle receiving hay low in this mineral. This observation was made in preliminary tests conducted by the University of California Experiment Station. The two hays contain ¼ and 1/10 percent phosphorus, respectively.

USDA

FAT TEST—Scientists of the U. S. Department of Agriculture have developed a test that will determine the degree of fatness of live cattle, sheep, or hogs. It will be most useful for purebred breeders who are selecting their best young animals to be kept for breeding stock. The test, which calls for laboratory equipment and technical skill, employs a drug called antipyrine. When a measured dose of the drug is injected into the blood stream of an animal it dissolves immediately, and then begins to be eliminated. After 2½ hours (with cattle) blood samples are taken every hour for four hours, and the rate of elimination of the drug from the blood is recorded. The fatter the animal, the greater is the concentration of the drug in the blood samples.

FATS IN PLASTICS—Specially treated inedible animal fats and vegetable oils are now being used as plasticizing agents in making vinyl plastic products such as garden hose, floor tile, drapes, tablecloths, table place mats, upholstery material and refrigerator gaskets. This new industrial use for fats from hogs and cattle, and vegetable oils from soybeans, results from a process developed from basic research. Such a process is cheap and practical and may be used with a wide variety of animal and vegetable fats and oils. This new use represents a step in the battle to find uses for the acute surplus of these fats.

BEAN BLIGHT—Antibiotics may be the first big break in a long attempt to control bacterial diseases of plants. In field trials, beans were sprayed with weak dilutions of streptomycin sulfate. Three days after the first treatment, plants were inoculated by a high pressure spray application of halo-blight bacteria. Ninety

"In use 5 days after I ordered it" SAYS WISCONSIN FARMER

This Dubl-Wall that protects your grain is an exclusive Quonset feature.

QUONSET® 16

CROP DRIER AND ALL-PURPOSE STORAGE BUILDING

The Quonset 16 can be equipped with a complete "fan and tunnel" package which conditions your grain, lets you hold it for a favorable market.

MIDWESTERN FARMERS ENDORSE QUONSETS

"In use in 5 days," says Cecil J. Rhodes, of Whitewater, Wisconsin, of his Quonset 16, equipped with fan and tunnel, for drying and storing ear corn. "I have 2200 bushels in this building now," says Mr. Rhodes.

"A wonderful building because it's so versatile." So Dean M. Hewitt, David City, Nebraska (right), described the Quonset 16. He has 12 of these buildings on his property.

W. R. Mitchell, Grundy Center, Iowa, dried 5500 bu. of ear corn in this Quonset 32 last fall—first crop harvested in his county.

Here's the new building you'll want for your farm. It's the Quonset 16—just right for crop storage . . . and for dozens of other uses.

It's available in a size to fit your needs . . . priced to meet your budget . . . and engineered to handle grain direct from modern harvesting equipment. All-steel quality construction, careful Quonset engineering, and qualified erection crews, assure a long-lasting, good looking building.

Easily expanded, the Quonset 16 meets CCC storage requirements. See your authorized Quonset dealer today or send in the coupon for complete information.

QUONSET PURCHASE PLAN

Your Quonset dealer can arrange convenient terms on the Quonset Purchase Plan. You'll find there's little or no down payment necessary.

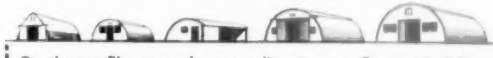
FOR ALL THESE USES... THE MOST PRACTICAL BUILDING YOU CAN FIND TODAY

Crop drying and storage
Tool shelter
Feed and seed storage
Farm shop
Garage
Hog house
Poultry house

YOU NAIL TO STRAN-STEEL FRAMING

STRAN-STEEL AND QUONSET REG. U. S. PAT. OFF.

The Quonset Line—Engineered for America's Farmsteads



Gentlemen: Please send me your literature on Quonset buildings for farm use.

Name_____

Route and P.O._____

County and State_____

(Please print)

GREAT LAKES STEEL CORPORATION
Stran-Steel Division Ecorse, Detroit 29, Mich.

NATIONAL STEEL CORPORATION 37

Your most convenient, economical way to use penicillin . . .

INJECTION
BICILLIN®
LONG-ACTING
For animal use

One injection gives blood levels lasting a week or more!

■ Figure out the economy of BICILLIN for yourself! One injection of ordinary penicillin gives blood levels in cattle lasting only 24 hours—BICILLIN gives levels lasting a week or more.

■ Because of its long-acting properties BICILLIN is ideal for prevention of shipping fever. It is also recommended for treatment in pneumonia.

■ Many cattlemen inject BICILLIN following calving as a regular routine to ward off infection.

SUPPLIED: 1 cc. Tubex® cartridge containing 600,000 units with needle.

10 cc. vials of 2 million units (200,000 units/cc.)

50 cc. vials of 10 million units (200,000 units/cc.)

Wyeth® Philadelphia 2, Pa.

. . . new solder paste is combined with flux.

percent of the plants in untreated plots became infected. In plots that had been treated with three applications of this solution there was not a single infected plant. USDA scientists plan further research on antibiotics and their use in the crude form for sprays and dusts.

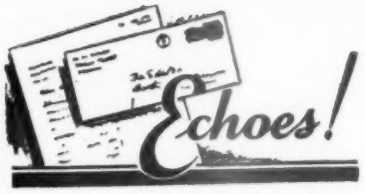
Industry

ANTIBIOTIC TREATMENT—Vetstrep, oral veterinary streptomycin sulfate, for the treatment of swine enteritis, calf scours, and enteritis in several other animals is available on the market. It is in granular form which dissolves quickly and may be given to animals in drinking water or milk. It is easy to use so that it can be given by the farmer. It is a product of and is manufactured by Merck & Company, Inc., Rahway, N. J.

SOLDER PASTE—A new paint-on solder paste combined with flux is available. It can be used as a tinning compound in paste form for all tinning operations. It can be used with torch, furnace, or soldering iron to join all metals except aluminum and magnesium. No additional or outside flux is ever required. Called "Eutec-TinWeld," it is a product of the Eutectic Welding Alloys Corp., 40-40 172 St., Flushing, N. Y.

KETOSIS TREATMENT—The DuPont Company is manufacturing the chemical sodium propionate of drug quality which can be used to treat ketosis. This new drug was the result of experimental work at Cornell University and is the first effective oral treatment for ketosis. In experiments at Cornell and also Maryland State Agricultural Experiment Station, a dosage of half a pound of sodium propionate per cow per day usually resulted in complete recovery in an average of two to ten days. It can also be used in combination with other treatments such as cortisone or intravenous injections of glucose.

QUICK SETTING CEMENT—The Hallemite Manufacturing Company, 2446 W. 25th St., Department B-19, Cleveland 13, O., has developed a new compound that provides a quicker, safer, better way to permanently fasten stanchions, railings, machinery, and various types of barn and other farm building equipment to concrete by means of anchor bolts. It is called Por-Rok.



His Sentiments . . .

Congratulations on your editorial in the April issue. Those are my sentiments, too, right down the line.—*Charles R. Koch, Assumption Farm, R. R. 3, Oxford, O.*

4-H Recognized . . .

I have received your April issue of Better Farming Methods magazine. I wish to congratulate and thank you for the fine way in which you have recognized 4-H Club work in this issue. If it were not for the good support such folks as you give us in carrying forward this dynamic program, we realize that the job would be much greater than it is today.—*W. W. Brown, State Boys' 4-H Club Agent, Agricultural Extension Service, Gainesville, Fla.*

Explanation, Please . . .

I enjoy your magazine very much and look forward to receiving it each month.

However, during the last two issues I have been very disappointed to see the judging pictorials repeated from former issues (the Hereford steers from December, 1948, and the Guernsey cows from May, 1952).

We have kept these judging pictorials on loan for 4-H clubs to borrow for use in practice judging. We are happy whenever a new class can be added because these offer excellent training for the clubs during the winter months.

I have always understood that good journalism consisted of new things instead of repeating. Now I am sorry I bought all the back judging pictorials a couple of years ago, because since then, at least five have been repeated.

I will still enjoy your magazine, but hope that when judging pictorials are published, they will be new.—*Harold M. Black, county agent, 4-H club work, St. Helens, Ore.*

Half right . . . half wrong. The Hereford pictorial was a pick-up but the Guernsey pictorial was a new one. Good news, Harold, for we have ten brand new ones on the way.—Editor.

Plans Lessons from BFM . . .

During the year 1952, I have used with pleasure the many features, departments, and articles which appeared in all 12 copies of *Better Farming Methods*. The information was used in many ways such as opaque material, posters, and in many instances, complete lesson plans were prepared from your magazine.

I subscribe to quite a few farm magazines, but I find that *Better Farming Methods* is one which contains valuable information for both the teacher and student.

I am sure your magazine is making a real and worth-while contribution to the development and growth of rural people.—*Sam Hughes, Jr., vo-ag instructor, Medford Training School, Medford, Va.*

aldrin

fast kill . . . high kill . . . all season

GROWERS WHO USE aldrin will tell you that there's nothing like it for fast kill and all-season control of cotton insects. Start with aldrin in early season for thrips and fleahoppers *and stay with it* . . . it's dynamite on boll weevils. And when bollworm starts, you simply use aldrin-DDT and get him too!

Fast kill: You'll see dead insects an hour after an aldrin application. For fast action and high kill, too, you can't beat aldrin.

Use it all season: Whether it's early season or late season, you need only aldrin or *aldrin-DDT*. It's murder to cotton pests.

See your insecticide dealer today and start the season off right, free of profit-stealing cotton pests.

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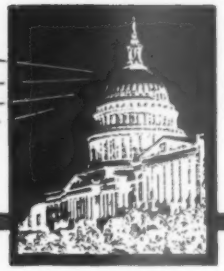
WASHINGTON NEWS



By Fred Bailey

Nelsen Heads REA

In his new job as head of REA, Ancher Nelsen, a strapping and handsome farmer from Minnesota, is going to get plenty of chances to use his reputed ability for getting work done without unnecessary argument.

His task will be to keep his agency and rural electric cooperatives that borrow its funds from bogging down in the bitter public - vs. - private power fight.

Ancher Nelsen

Sharp appropriation cuts are in prospect for federal power projects. A more moderate reduction is possible in loans that can be made by REA itself. Private power companies can be expected to take all this encouragement for stepping up their campaign to end present co-op preference rights to federal power.

It won't be easy, but Nelsen is expected to do all right.

He got off to a good start with REA veterans in Washington by telling them that he thought they had done a fine job under Wickard. He added that nobody would be fired because of his "politics, creed or color," but that everybody would be judged by his work.

Vo-Ag Fund Slash Protested

Look for at least partial restoration of the sharp 30 percent cut proposed for vo-ag work in the new, 1954 fiscal year starting July 1.

Recommended reduction of appropriations for vo-ag activities from almost $7,000,000 in the current year to about $4,750,000 has brought letters of protest from across the country to lawmakers on Capitol Hill. Some legislators have exhibited surprise at the hornet's nest of opposition aroused by the slash in funds. Many have called the Office of Education in Washington to "discover what this business is all about."

The surprise would have been less, perhaps, had the Congressmen been aware of the close working relations of vo-ag with the politically potent farm organizations. Most sections of the Farm Bloc, from the Farmers Union on the left to the Farm Bureau on the right, have publicly deplored the proposed reduction.

Vo-ag specialists here tell us that a 30 percent cut, if it went through, would require just about the same percentage of reduction in the number of vo-ag teachers and programs across the country. That's on the average. The effect in some states would be considerably more severe than in others.

McGrath Replacement Undecided

It may be two or three months before another Commissioner of Education is named to replace Earl J. McGrath, by all the signs in Washington. Reasons are two:

(1) Veterans in the Office of Education have told Eisenhower Administration bigwigs that it wouldn't be fair to inject a new man into the fight over funds for vocational training. Delay his appointment until after the battle is over, they advise, so that he won't be blamed for what finally is—or is not—appropriated.

(2) Second reason is that the men mentioned thus far for commissioner have other responsibilities that would keep them from taking a new job immediately.

Plan USDA Reorganization

Benson & Company plans to reorganize USDA have been encountering headwinds on Capitol Hill.

Objections are coming mainly from Southern Democrats, thereby posing a difficult problem for the new administration. To keep control of his legislative proposals on Capitol Hill, Eisenhower needs the backing of Southern conservatives.

Protests voiced by Southern Democrats are based on the fact that Benson's proposed reorganization is much the same as changes that were asked some while ago by ex-Secretary Brannan. Actually, Southern opposition goes far beyond USDA reorganization.

What the lawmakers are really sore about is Benson's public statements on the need for reducing price supports when present programs expire. Southern legislators, almost to a man, from left to right politically, are pledged to back price supports at levels either as high or higher than now.

The reorganization plan is scheduled to go into effect automatically on June 6 unless Congress registers its disapproval before that date.

USDA reorganization, if approved, would follow lines established by the Hoover Commission in its study during the Truman regime of ways and means to improve the executive branch of the federal government. The reorganization would give more authority to the Agriculture Secretary.

Benson's idea is that he should

REYNOLDS FARM INSTITUTE

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Louisville 1, Kentucky

REYNOLDS FARM INSTITUTE PRESENTS A NEW COLOR MOTION PICTURE..."BRIGHT HORIZONS"

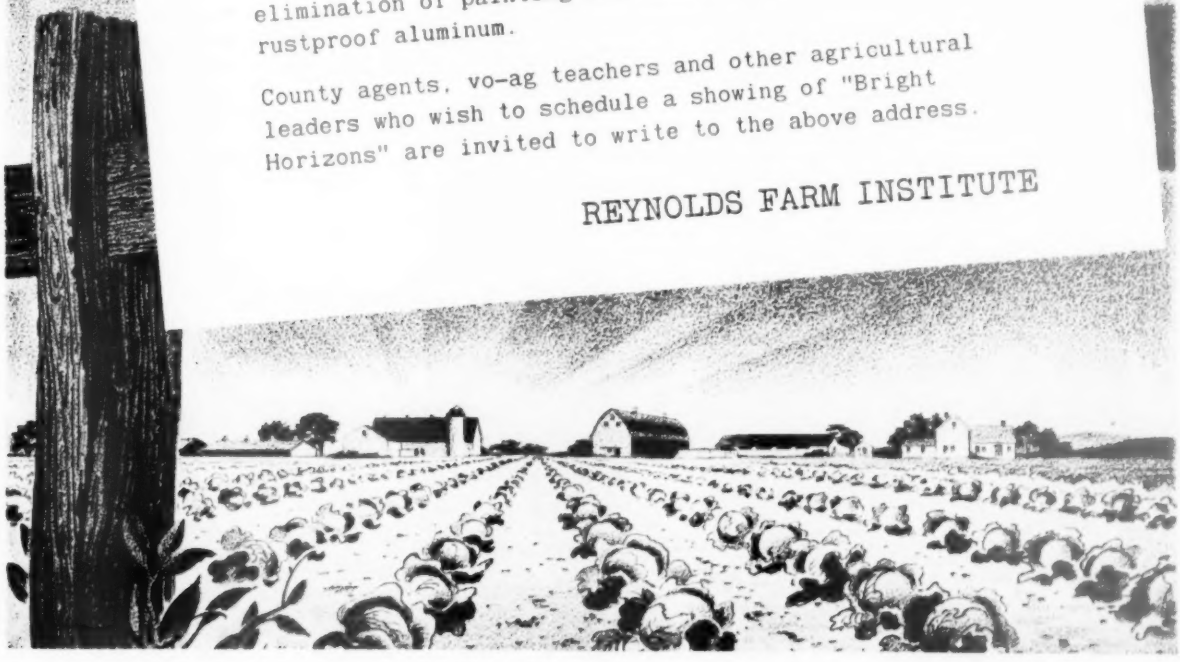
Adding visual education to other media of farm information, Reynolds Farm Institute is proud to make available for scheduled group showings a 16 mm. color motion picture entitled "Bright Horizons".

This is a film of scope and beauty, dignifying the most basic occupation of man. It pictures great advances made in agriculture and the bright horizons ahead ... horizons where the gleam of aluminum is seen increasingly, as farm buildings develop into more efficient farm tools.

Here the advantages of aluminum are brought out in true perspective, as among the many aids to greater farm production at lower cost. Greater production through aluminum's heat reflectivity ... keeping poultry and livestock cooler in summer, warmer in winter. Lower cost through the practical elimination of painting and maintenance, with rustproof aluminum.

County agents, vo-ag teachers and other agricultural leaders who wish to schedule a showing of "Bright Horizons" are invited to write to the above address.

REYNOLDS FARM INSTITUTE



FARMERS CAN'T CONTROL CORN PRICES, BUT this chart shows how they can *make money as prices slip and the "cost-price squeeze" becomes still tighter.* Notice how the use of proper amounts of fertilizer can bring production costs down—keep a profitable "spread" between the cost of production and the selling price.

How Farmers Can Beat The "Cost-Price Squeeze"

ALL FARM LEADERS AGREE that the corn belt farmer is in a tough spot today. The price of the commodity he has to sell is trending downward, while his cost of production stays high. Result: most farmers are caught in what often is called a "cost-price squeeze." And they're wondering what they can do about it.

THE ONLY SOLUTION seems to lie in the direction of lower production costs. No individual farmer can do much about corn *prices*—but he *can* do something about lowering the cost of producing his corn. By applying fertilizer as recommended by his state agricultural college, he can not only lower his cost of producing a bushel of corn, but at the same time will actually increase his yield.

JUST LIKE AN INDUSTRIAL ENTERPRISE, each farmer has certain costs that are fixed. On a typical cornfield the fixed costs might look like this: (Source: National Fertilizer Association)

Low Yielding Field	FIXED COSTS	High Yielding Field
$ 7.97	Ground Preparation	$ 7.97
1.44	Planting	1.44
6.85	Cultivate & Spray	6.85
15.40	Other	15.40
$31.66	Total Fixed Costs for Corn Production	$31.66

In addition, there are *variable* costs that might look like this:

Low Yielding Field	VARIABLE COSTS	High Yielding Field
$ 1.50	Seed	$ 2.40
4.25	Fertilizer	34.74
4.77	Picking	4.77
.30	Interest	1.67
$10.82	Total Variable Costs	$44.58

Now add *both* fixed and variable costs and see how our two fields compare:

Low Yielding Field		High Yielding Field
$31.66	Total Fixed Costs	$31.66
10.82	Total Variable Costs	44.58
$42.48	Total Cost Per Acre	$76.24
48 bushels	Yield Per Acre	106 bushels
88c	Cost Per Bushel	72c

It's easy to see from these figures how fertilizer can help ease the pressure of the "cost-price squeeze." But in addition to lowering the cost of producing each bushel of corn, fertilizer also increases net profit per acre. Here's how:

Low Yielding Field		High Yielding Field
48 bushels	Yield per acre	106 bushels
$72.00	Gross Income Per Acre (Corn @ $1.50)	$159.00
-42.48	Cost	-76.24
$29.52	Net Profit	$82.76

Remember these figures the next time you hear a farmer complain of the "cost-price squeeze." And remember, *too,* that some of the most spectacular corn gains ever recorded were made using Spencer's "Mr. N" Ammonium Nitrate Fertilizer.

SPENCER CHEMICAL CO., Kansas City, Mo. **S. E. District Sales Office, Candler Bldg., Atlanta, Ga.**

. . . cotton reserves exported to force controls.

keep closer rein on his own department, and pass along new powers to state and local groups.

The latter intention would be in line with Eisenhower pledges to increase state and local responsibility, and to reduce Washington's influence.

Wheat-Cotton Control Planned

USDA agencies concerned with marketing quotas and acreage allotments are due for busy months ahead unless there is a radical change in the agricultural outlook.

Controls over wheat and cotton next year now look sure, and Benson already has asked Congress for $29,000,000 to put them in motion.

Carryover of wheat now promises to be at least 500,000,000 bushels on July 1. On that date, barring emergencies, the Secretary must proclaim quotas if reserves are more than 350,000,000 bushels. Farmers would vote on whether they want to go along with quotas and acreage controls by July 25, a two-thirds majority being required for the curbs to take effect.

In the case of cotton, reserves also are expected to force controls. Production this year promises to be 2,000,000 to 2,500,000 bales above the 12,500,000 to 13,000,000 bales Benson estimates as the maximum that can be produced if quotas are to be avoided in 1954.

Cotton quotas would be proclaimed by October 15, and growers would vote on the proposition by December 15.—*End.*

★

Compliments . . .

. . . I believe your magazine is tops in aid to vo-ag teachers.—*Mays Fuqua, vo-ag teacher, Northwest High, Justin, Tex.*

. . . I certainly feel that you have one of the very best farm publications that we receive in our vocational agriculture departments.—*D. M. Clark, vo-ag instructor, Montrose High School, Montrose, Colo.*

Coming Events

June 1-20—Negro Regional Extension summer school, Prairie View A & M College, Prairie View, Tex.

June 4-5—Ohio FFA convention, Columbus, O.

June 8-15—Sixth annual regional 4-H club camp for Negro boys and girls, Kentucky State College, Frankfort.

June 8-26—Central Regional Extension summer school, University of Wisconsin, Madison.

June 10-12—Illinois FFA state convention, Auditorium, University of Illinois, Urbana.

June 14-17—ASAE 46th annual meeting, Pittsburgh, Pa.

June 15-17—Illinois state conference of vocational agriculture instructors, Urbana.

June 15-18—Virginia FFA state convention, Virginia Polytechnic Institute, Blacksburg.

June 15-19—Louisiana State FFA Convention, State University, Baton Rouge.

June 15-19—Florida state FFA convention. Geneva Hotel, Daytona Beach, Fla.

June 17-24—National 4-H Club Camp, Washington, D. C.

June 18-19—Grassland conference, University of Vermont, Burlington.

June 24—33rd annual Ohio Poultry Day, Ohio Agricultural Experiment Station, Wooster.

June 25—2nd annual Ohio Turkey Day, Ohio Agricultural Experiment Station, Wooster.

June 29-July 17—Southern Regional Extension summer school, University of Arkansas, Fayetteville, Ark.

July 6-10—White Vocational Agricultural Instructors conference, Virginia Polytechnic Institute, Blacksburg.

July 6-24—Northeastern Regional Extension summer school, Cornell University, Ithaca, N. Y.

July 13-15—Annual meeting, American Association of Agricultural College Editors, University of California, Berkeley.

July 19-25—10th National Farm Safety week.

July 20-August 7—Western Regional Extension summer school, Colorado A & M, Fort Collins.

July 29-August 17—Southern Regional Extension summer school, University of Arkansas, Fayetteville.

September 18-19—National Soil Conservation Field Days and Plowing Contest, Eau Clair county, Eau Claire, Wis.

October 3-10—National Dairy Cattle Congress, Waterloo, Ia.

October 5-7—National FFA Dairy Cattle and Dairy Products judging contest, Waterloo, Ia.

October 10-17—First International Dairy Show, International Amphitheatre, Union Stock Yards, Chicago.

A report on the WHEY FACTOR

Recent research discloses that unidentified nutrients known as the *Whey Factor* may rank in importance with antibiotics and vitamin B_{12} as a means of speeding chick growth. In extensive college studies, increased gains of up to ⅔ lb. per bird have been achieved in 10 weeks from the addition of 3% dried whey to rations already fully fortified with an antibiotic feed supplement.

Typical of the significant results being achieved with the Whey Factor are those summed up in a Texas Experiment Station report, which states: "The feeding of this product (whey) produced an increase in the weights of birds in all instances, even when fed with an APF concentrate containing aureomycin or with penicillin . . . this work indicates that dried whey contains unidentified factors which are necessary for maximum chick growth."

This evidence, substantiated by other college feeding trials from coast to coast, is highly significant to poultrymen in the face of today's production costs. By feeding whey — now available in convenient condensed form as Peebles' Free-Choice Feed — farmers can supply the Whey Factor for improved feed efficiency and enjoy the additional conditioning benefits that whey provides for all poultry.

For detailed information on coast-to coast Whey Factor studies, send for your free copy of "The Whey Factor Story". Write Dept. D-6.

THE WHEY FACTOR STORY

WESTERN CONDENSING COMPANY, Appleton, Wis.
World's Largest Producer of Whey Products

When you illustrate your talk with slides . . .

Make Your Slides Worth-While

By B. A. Jones
Information Division
Ethyl Corporation

Part II—Simple Rules For Effective Slides

This is the second of a series of three articles on slide presentations. Part I, "How Good Slides Help A Talk," appeared in the May issue. In this second part the author discusses the importance of composition and offers a few simple rules for making effective 35 mm. colored slides and slide charts.

● THERE IS NOTHING novel about colored slides. Almost all vo-ag teachers and county agents have taken pictures on color film in their own 35 mm. cameras and have projected the transparencies on the screen for the benefit of their audiences. Such slides are of great potential value in holding the attention of the audience, and for clarifying or emphasizing a point. But we may not be deriving the maximum potential value from our transparencies if they are inferior.

Most color transparencies are technically sound as photographic records, for most of us will not use a transparency if it is out-of-focus, if it is over- or under-exposed, or if it has a double image. But if we want to hold the attention of our audiences, sell our ideas, and perhaps motivate the audience into action, we may have to do more than simply illustrate our talks with photographic records.

What we should strive for is an integrated set of superior transparencies that carry our story from the inception of an idea to audience conviction.

To achieve this result we usually have to pay as much attention to the composition and lighting of our pictures as we do to the aperture setting of the camera, the focusing, and the time of exposure. We may also have to discard unsatisfactory and irrelevant pictures and reshoot others to obtain the proper sequential effect.

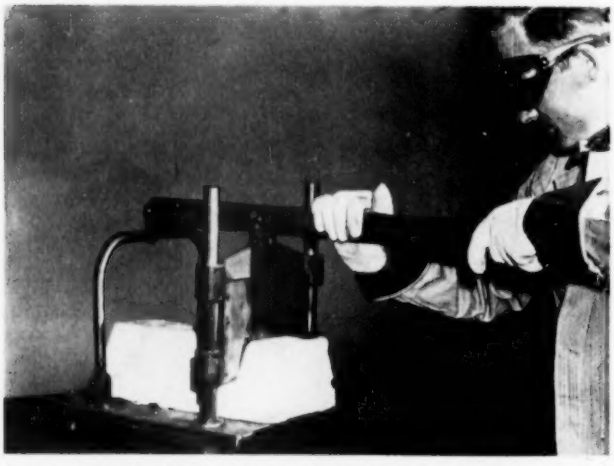
Compose Your Pictures

We do not have to be artists or professional photographers to understand the simple rules of illustration composition. The basic rule to follow is: Illustrate one idea at a time.

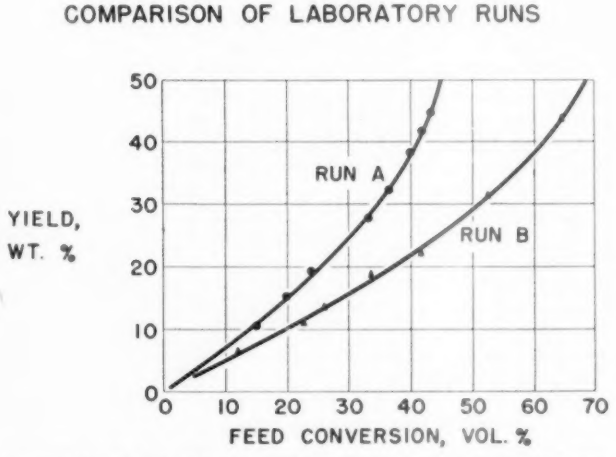
Simplicity of arrangement and clarity of meaning should be paramount. We should avoid complications, cluttered effects, and distractions, which means we should include little else but the essential subject for discussion.

If other subjects are included, they should occupy a secondary position for purposes of comparison only (for example a figure of a man might be included beside a piece of agricultural machinery).

We should avoid the merging of lines on the picture when they are not associated in reality, giving unnatural effects like the emergence of a tree from the chimney of a house. Backgrounds should be essentially free from excessive detail. A desirable balance should be obtained



An example of a photograph suitable for use as a slide. The picture is well composed, having only one central idea presented in a direct manner and in good balance, and without distracting details in the background, to divert attention from the main subject.



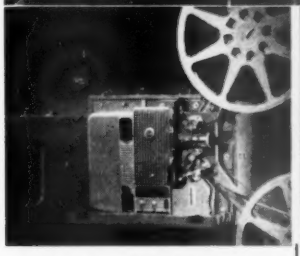
An example of a chart layout suitable for use as a slide. Lettering is bold and letter height about 1/20 the height of the chart. The important curve lines are of sufficient boldness and in good contrast with a relatively coarse background grid.

Kodak announces . . .

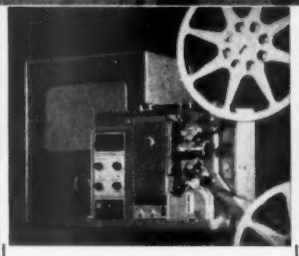
3 brilliant new Pageant models . . . and a heavy-duty silent projector for critical movie analysis

The Pageant is the projector that has revolutionized 16mm. sound projection . . . the first compact projector with the optical and tonal excellence of full-scale 16mm. equipment . . . the first to offer permanent prelubrication—an exclusive 16mm. feature that eliminates *completely* the chief causes of projector breakdowns!

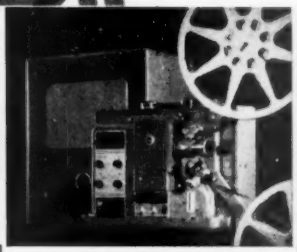
At just $400, the Pageant is still the economical top-choice projector for average 16mm. sound-and-silent projection. But now, from Kodak have come four more projectors—each "tailor-made" to meet a particular 16mm. projection requirement. See your Kodak Audio-Visual Dealer about a demonstration—or use the check slip below for further information.



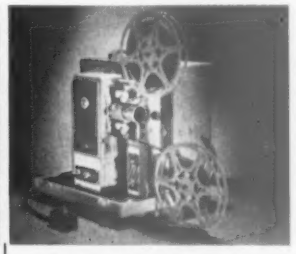
NEW Kodascope Pageant Sound Projector, Model AV-071, with Plus-40 Shutter A super-brilliant version of the standard Pageant, it incorporates an extremely efficient two-bladed shutter which provides vastly increased illumination—more than 40% greater than the sound-and-silent projector. Ideal for projection under difficult conditions . . . in hard-to-darken rooms, in halls or auditoriums . . . *wherever* extra image brilliance, long screen "throws," or unusually large picture areas are required. $400. *Sound projection only.*



NEW Kodascope Pageant Sound Projector, Model AV-151, with 15-watt amplifier Features an extremely high-fidelity amplifier, the extra capacity of the 12-inch Kodak De Luxe Speaker, and provision for the finest sound fidelity obtainable with a 16mm. portable projector. Ample power output and speaker capacity for auditorium projection . . . plus separate bass, treble, and fidelity controls for unmatched sound quality in cramped quarters as well as in spacious auditoriums. $530. *Sound-and-silent projection.*



NEW Kodascope Pageant Sound Projector, Model AV-151E, with Plus-40 Shutter and 15-watt amplifier Combines increased light output produced by Kodak's Plus-40 Shutter with the precise tone and volume features of the Model AV-151. No other portable projector gives you such brilliant screening—even on long throws—plus such excellent tonal quality at all volume levels. The Pageant, Model AV-151E, is capable of meeting *every* 16mm. requirement short of a theater-type installation. $530. *Sound projection only.*



NEW Kodascope Analyst Projector Heavy-duty silent projector designed to meet the critical requirements of 16mm. motion-picture analysis . . . ideal for such fields as time-and-motion study and sports analysis. Features a heavy-duty reversing mechanism operated from a remote-control switch on a 5-foot cord. Separate motor drives blower at constant speed, permitting *repeated, instantaneous* reversals without film or projector damage. With Daylight Projection Viewer, for desk-top movie study, $295. *Silent projection only.*

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MOTION-PICTURE PROJECTORS
for every audio-visual need

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Please send name of nearest Kodak Audio-Visual Dealer. Complete information on equipment checked: ☐ ***Standard Pageant*** ☐ ***Pageant Model AV-071*** ☐ ***Pageant Model AV-151*** ☐ ***Pageant Model AV-151E*** ☐ ***Kodascope Analyst*** ☐ ***Kodak Multi-Speaker Unit***

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Kodak

Feed Cost High?

Here's how Morton Trace Mineralized Salt helps animals make better use of feed

WITH the high cost of feed and labor cutting into livestock profits, good feed conversion is more important today than ever before. Livestock must be thriftier, gain more on less feed, make better use of purchased supplements.

A mineral feeding plan, built around Morton's Trace Mineralized Salt is one of the surest ways to accomplish this . . . and widen the gap between high feed costs and skidding market prices.

Morton's Free Choice Trace Mineralized Salt supplies the sodium and chlorine of salt which are so vitally important in the digestion and assimilation of proteins and carbohydrates. In addition, Morton's T. M. Salt supplies minerals — iron, copper, cobalt, manganese, iodine and zinc. These trace minerals influence and control the enzyme, vitamin and hormone functions — those basic life activities that convert the grains, grasses and forages into nutrients and then, in turn, build these nutrients into bone, meat, milk, and wool.

The result is that with Morton Free Choice Trace Mineralized Salt there is better use of feed by your livestock . . . more efficient feed conversion . . . faster gains, better health — *and lower feed costs.*

It costs only a few cents more per animal per year to get the extra benefits of Morton Trace Mineralized Salt. Your dealer has it in stock. Ask for it by name — feed it free choice.

Fed MORTON TRACE MINERALIZED SALT livestock are healthier, thriftier. Their frames are bigger to carry more muscle tissue.

With Morton's Trace Mineralized Salt, animals gain weight faster, with less time between weaning and market. They grade out better, make more profit for you.

By controlling and stimulating the vitamin, enzyme and hormone functions, the trace minerals help livestock make better use of feed . . . get more value from proteins, grasses and forage.

The trace minerals are vital to reproduction . . . to preventing breeding failure. Young are more vigorous, healthier. Mother animals produce more milk.

MORTON

TRACE MINERALIZED SALT

for Healthier, Thriftier Livestock

FREE . . . This 32-page booklet gives you complete facts on feeding salt and trace minerals to all classes of animals. Mailed Free and postpaid. Morton Salt Co., P. O. Box 781, Chicago 90, Illinois.

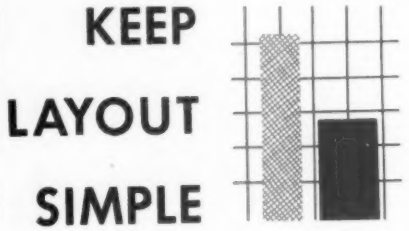
in subject arrangement and in tones and colors so that a flat uninteresting appearance may be avoided, for proper contrast adds to the appeal of a picture.

Finally we should not hesitate to use artificial props if they will help the viewer understand the picture more readily. We should not hesitate to stage an action shot if it results in an improved picture.

Charts Post Problems

In addition to using color transparencies, county agents and vo-ag teachers may also need to project charts on the screen. A few simple but important rules will help us with such charts.

Crowding printed copy into a small space may be desirable in some lines of work—like writing the Lord's Prayer on a penny—but it's the principal cause of failure in laying out a chart for a slide.



Too much material on a slide is bad for two reasons. First, it requires too much time and mental effort for the average viewer to understand the main point of the slide. Second, too much material invariably means the lettering is too small to be read comfortably on the screen.

Use One Idea Only

Contributing to chart failure is the inclusion of more than one main idea on a slide. Most viewers do not want to make the extra effort to unscramble several ideas—a job that rightfully should have been done by the speaker beforehand.

Even when we have boiled down our material to one idea per slide, and are using essentially simple and brief copy, we must still be careful to lay out our slides so the man in the back row can read everything comfortably.

How can we be sure our chart slides fulfill this requirement?

How To Lay Out Charts

If we lay out our chart original on a standard piece of typewriter paper (8½ x 11 inches) we should use no letters smaller than ¼ inch high. This size will ensure legibility in most auditoriums. Legibility will be even better if we make the letters ⅜ inch high.

Of course, our original chart may be, for one reason or another, smaller or

larger than 8½ x 11 inches in size. Whatever the size of the original chart, we should at least keep the proportions in the ratio of about 0.7 as high as wide, so that the shape will match fairly well the shape of the standard slide mask.

Thus, a chart 14 inches high by 20 inches wide would be of the proper shape. However, if we use an original chart larger or smaller than 8½ x 11 inches, we must change the size of our lettering to get the same effect on the screen.

Rule for Letter Size

To determine the proper size lettering to use in such cases we follow this simple rule: Use lettering about 1/30 as high as the over-all height of the chart (if we want extremely good legibility, we use a ratio of 1/20). These rules apply whether the chart is to be made into a 3¼ x 4 inch slide or a 2 x 2 inch slide.

As soon as we attempt to follow these simple rules for legible lettering, we will usually discover that we have far too much copy to fit properly on the chart with adequate spacing.

In such cases we will have to boil down the copy, eliminating repetition, and choosing the shortest words possible.

Sometimes we may have to abbreviate, provided we resort to abbreviations that are understandable. This reduction of copy to its minimum essentials is one of the fundamental steps necessary to change a chart that is suitable for use in a report into a form that is satisfactory for use in a slide.

Slide Must Be Legible

The best type of lettering to use is the Gothic style, the simple and rather bold letters found in mechanical lettering sets (such as the Wrico and Leroy sets made for draftsmen's use).

If these sets are not available, we can buy Foto-type preprinted letters from an artist supply store. These letters come in "fonts" perforated so that a single letter can be detached from the font, mounted in an aligning stick to form words, and the words then transferred with cellophane tape to the chart.

Even if we letter our charts by hand, we should also use plain bold styles, keeping the letters vertical rather than slanted.

A typewriter can also be used quite effectively for the copy on a slide chart, capital letters being preferred. But be-

To succeed, you not only need initiative, you need finishiative as well. When an engine starts knocking it begins to stop pulling.

JUNE FARM BULLETIN

What to do about DUST!

The best lubricating oil you can buy for your tractor can't do its full job when laden with dust. So when operating conditions are extra dusty, change the filter element regularly.

Remember—while oil filters help remove the solid contaminants from oil like dirt and sludge, they can't remove the *soluble* contaminants like acids. Though changing the oil filter element regularly is important, it doesn't remove the necessity for periodic crankcase oil changes.

. . . CALLING ALL COWS!

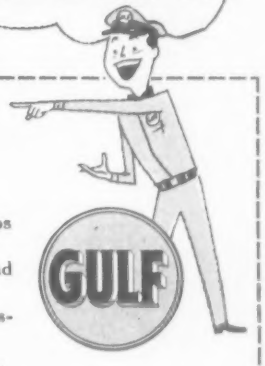
Did you remember Gulf Livestock Spray? Its *activated pyrethrins* formula kills flies, lice, ticks, gnats and repels stable flies, horn flies, sand flies and buffalo gnats. Costs only about 1¢ per application.

Want to keep posted? If you're too busy to read a lot of farm publications, but still want to know what's going on, the Gulf Farm Review is just what you're looking for. It's a handy, pocket-size magazine published every second month. The Review contains digests of important farm articles, special features, etc. To get it regularly, just send your name and address to Gulf Farm Aids, Room 1509, Gulf Building, Pittsburgh 30, Pa.

Easy cure for STICKY VALVES!

To keep engine valves moving freely and to insure longer valve life, give them this vital attention. Check clearance adjustment periodically. Use only top-quality fuels and oils, (Gulf, of course) to minimize valve stem deposits. And (if your tractor doesn't have pressure lubrication to the valves), *oil valves and rocker arms by hand at least once a day.*

Learn to depend upon GULF'S BIG 3!



1.—Gulfpride H.D.—the high detergency motor oil—keeps engines clean and smooth-running.

2.—Gulf All-Purpose Farm Grease—saves you expense and bother of handling a number of separate greases.

3.—Gulf Multi-Purpose Gear Lubricant, for conventional transmissions and all differentials and final drives.

THRIFTY FARMERS GO GULF

FARMERS CAN
Stop Costly
Spoilage
with
Sisalkraft

• For capping tops and sealing doors in permanent silos

• For covering trench silos

• For covering "stack" or "box" silos

• For building temporary upright silos

• For covering haystacks

Waterproof, airtight Sisalkraft, properly weighted down, reduces surface spoilage to a minimum. It's tough, easy to apply—and low in cost!
Available in a variety of widths at Lumber or Building Supply Dealers.

The Sisalkraft Co., Dept. BF-6
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Please send Free samples of Sisalkraft and booklet on Feed Protection.

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Town and State_____

SISALKRAFT WATERPROOF REINFORCED PROTECTIVE PAPERS

The SISALKRAFT Co.
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cause the capital letters on a typewriter are only about 0.10-inch high, we must keep the size of the original chart to a size 3 inches high by 4 inches wide, if we want good legibility on the screen.

Legibility is determined as much by the amount of vacant space around the words as by the size of the letters themselves, so we should not crowd our lines of copy close together.

It is good practice, also, to use not more than 3 lines of copy in any grouping of words, without additional separating space, and to limit the total number of lines of copy on a slide to 10.

Keep Lines Bold

If our chart carries curves or graphs as well as lettering, we should keep the lines bold, especially the important ones.

For an original chart of 8½ x 11 inch size, important lines should be just a little under 1/16 inch wide; lines of lesser importance could be about 1/32 inch wide.

For chart sizes larger or smaller than 8½ x 11, figure the important line widths by multiplying the chart height in inches by 6; for lines of lesser importance multiply the chart height by 3. In both cases our answer will be the line width to use in thousandths of an inch.

Color Improves Charts

Audiences have now become so accustomed to viewing colorful photographic slides that simple black-and-white chart slides now lack popular appeal.

Anyone can improve the appearance of a black-and-white slide by coloring white areas with water-soluble aniline dyes. Such dyes can be purchased from most artist supply stores for a reasonable price.

This hand coloring is particularly effective when applied to "negative" slides in which the letters and lines or bars are white (i.e., transparent) on a black background. Such negative slides can be made quite cheaply by any commercial photographer equipped to do copying work by photographing the original black-on-white original on high-contrast negative film.

If we are normally using color film in a 35 mm. camera and only occasionally need to produce a chart or table as a slide, we might find it more convenient to lay out colored charts in the beginning and shoot them with our own cameras.

The simplest way to do this is to equip the 35 mm. camera with an additional lens for photographing subjects at close range, and to mount the camera on a vertical stand, and have the chart beneath the camera on a table. Or a horizontal stand can be used with the chart mounted vertically with its center at the same height as the center of the camera lens.

In both types of copying installation, focusing can be accomplished best by removing the back of the camera and placing a piece of ground glass on the film track.

Dark Colors Best

If we lay out our charts in color, they should be prepared on matte colored paper, the darker colors such as green, blue, or rust being preferable to the pastel shades. Lines and letters may be made with black, white, or colored opaque inks, or with diluted poster paints.

Lettering may also be applied as ready-cut white paper letters which can be purchased from an art supply store. Bars and arrows may be cut out of paper in a color to contrast with the chart paper, and attached to the chart.—End.

In the July issue, part three of this series and concluding article entitled "Good Slides Are Worth A Good Presentation" will be presented.

These four leaders in agricultural education learned to master musical instruments during the North Central Regional Conference in Chicago held in March. Professional entertainers at an after-dinner session persuaded, left to right, George Ekstrom, Department of Agricultural Education, University of Missouri; Louis M. Sasman, State Supervisor of Vocational Agriculture, Wisconsin; Hampton T. Hall, Supervisor of Vocational Agriculture, Iowa; and Ralph E. Bender, chairman of the Department of Agricultural Education, Ohio State University, to take part in the program. Here you see them fully dressed for the occasion and each "tooting" his own horn. Picture by Ralph J. Woodin, Ohio State University.

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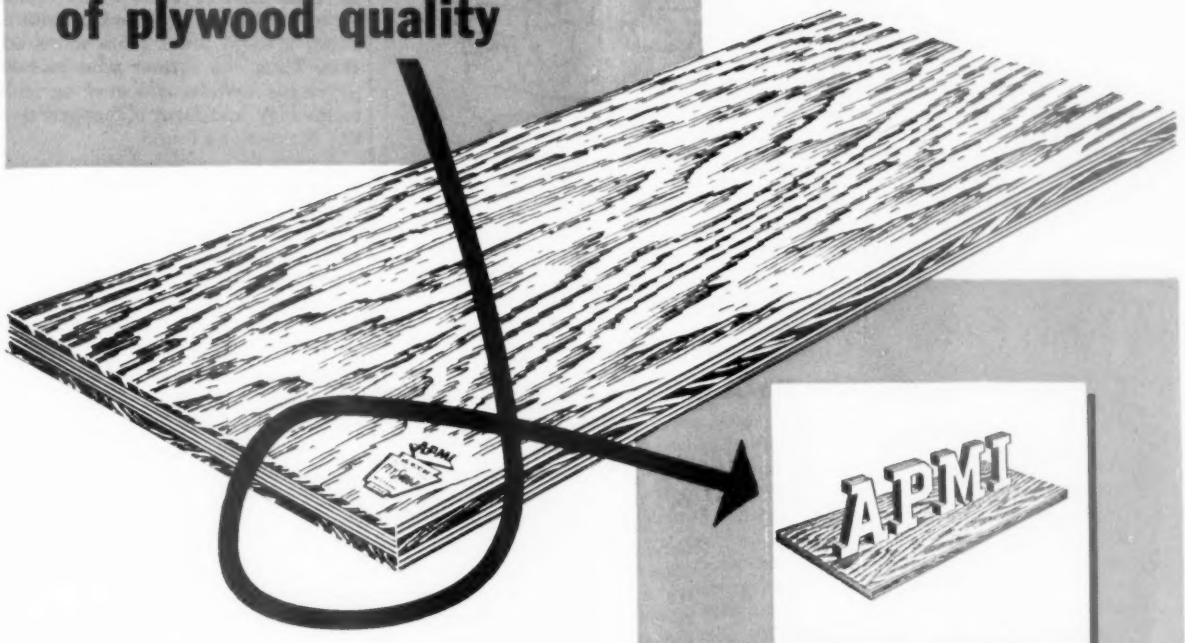

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The exclusive poultry magazine for poultrymen in the seven Pacific slope states.

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Now you can have specialized help for your poultry problems . . . in the classroom or on the farm, thru these specialized magazines. These leading poultry magazines give complete coverage to the many problems encountered right on the farm or in your poultry classes.

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Recent Study Shows . . .

Farmers Want Education

● THE EDUCATED MAN does not exist. No one reaches the point of not being able to profit from more education. Thus, the farmer who cannot improve his understanding of agricultural technology and farm management abilities is not to be found.

A recently completed study shows that farmers want to continue their education to improve their proficiency in farming. This study, conducted by the Committee on Research in the Education of Farm Veterans under the sponsorship of the American Vocational Association, surveyed 5,274 farmers who were enrolled in the Institutional-on-Farm Training Program for veterans in 42 states.

Chart Progress of Farmers

The purposes of the study were to determine the progress of these farmers toward adjustment in family and community life and in farming and to determine their expressed attitudes toward the program and toward future educational programs for farmers.

The study indicated that farmers enrolled in this program have made remarkable progress. They have moved progressively toward farm ownership, improved their family living conditions, and put into operation on their farms many improved practices. Rates of production in both livestock and crops exceeded United States averages.

For instance, in 1950 the national average of production of cotton was 269 pounds per acre; veterans in the South reported an average of 386 pounds per acre that year. In 1949, veterans' corn yields exceeded the United States average by 15 percent.

Future Programs Outlined

Ninety-two percent stated that they thought the public school should offer a continuing program of systematic instruction in agriculture for adults in the community.

Eighty-seven percent said that they would be willing to pay tuition to cover at least part of the cost of such a program after their VA eligibility had ended.

A majority of the group said they would also be willing for part of their school tax money to be spent in carrying

on an adult education program in agriculture.

Most of the farmers thought the program ought to be broadened to include, in addition to agriculture, the study of local school and educational opportunities, health and safety, local community problems, how to choose an insurance policy, farm organizations and services, and other social and civic problems.

Eighty-six percent wanted to include their wives in the program, especially in those meetings that are of interest to both husband and wife.

One to two meetings per week all year round was preferred by 61 percent; 16 percent wanted them once or twice monthly; and the remainder preferred meetings only during the fall and winter.

Farm Visits Desirable

Almost the entire group expressed a desire to have the teacher of agriculture visit them on their farms and help them with their problems. More than 75 percent wanted the teacher to visit with them weekly.

If veterans enrolled in this program can be considered as representatives, then there is an indication that younger progressive farmers in America today want to continue their education. They expect the public schools to provide for them the kind of program that will make them better farmers and citizens.—*V. Ray Cardozier, Memphis, Tenn.*

★

Electric Rototiller

A new small rototiller, operating on electricity, is announced by Rototiller, Inc., Troy, N. Y. It has a ¾ horsepower machine, low in cost but able to do a wide variety of jobs in small gardens, lawns, greenhouses, and nurseries.

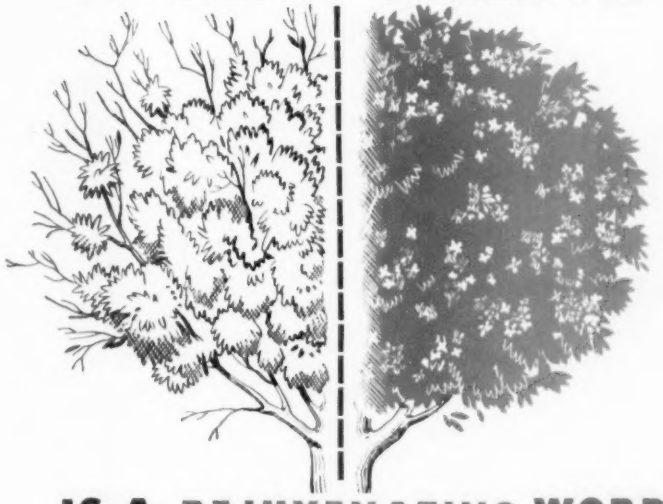
The basic machine is quickly adapted, with the Rototiller lightning change system, to use of a number of attachments.

Among these are a lawn trimmer; chain saw to cut down trees up to 20 inches thick; a half-inch drill attachment; floor sander and polisher, and a special short shaft for adapting the cultivator to use on greenhouse benches.

Coming Next Month

Annual Buying Guide

FERRO-GRENE*



IS A REJUVENATING WORD

FERRO-GRENE*—CURES PLANT CHLOROSIS

Citrus trees, dying from a kind of Agricultural "Anemia" called iron chlorosis, have been rejuvenated by Ferro-Grene in a matter of weeks. *In a single year this Versene Compound has turned barren trees into profitable producers.* Prior to the development of the new Ferro-Grene type of iron chelate, no practical way was known to revitalize iron-starved plants. Already used commercially on chlorotic citrus, avocados and gladiolus, it also works on other green growth. Amazing experimental results have been obtained on iron deficient vegetables, corn, blueberries, pineapples, stone-fruits, roses, azalea, hibiscus, gardenias, shrubs, lawns and golf greens.

OTHER METALLIC CHELATES OF VERSENE® FOR OTHER METAL ION DEFICIENCIES

Research indicates that Versene-chelated compounds of Manganese, Zinc, Copper and other metal complexes can correct corresponding trace metal deficiencies in a variety of plant life. Experimental quantities of these materials are available without charge for institutional and other serious experiment.

FERRO-GRENE* AND THE VERSENES®

Ferro-Grene and other metallic chelates of Versene are complete, ready-to-use chemical compounds. They keep *usable* metals in a soluble complexed form that can be readily absorbed and assimilated by root systems. The clue to their development was found in certain research** on metals in microbial nutrition.

Ferro-Grene is for acid soils. Another type of iron chelate is for alkaline and calcareous soils. When experimenting, please specify your type of soil (pH) so that we can send correct samples and technical data.

*Trade Mark **Hutner et al Proc. Amer. Phil. Soc., 94,152—170 (1950)

"Chemistry's most precise chemicals"

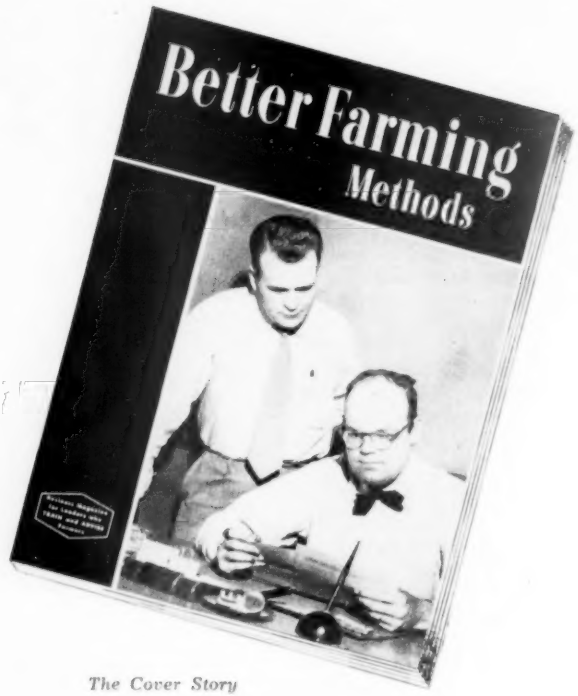
BERSWORTH CHEMICAL CO.

FRAMINGHAM, MASSACHUSETTS

McCoy Gives You Some . .

Farm Column Ideas

By Wesley McCoy
County Agent
Benson, Minn.



The Cover Story

● SHOULD I WRITE a farm column? I first asked myself that question about three years ago. Since that time I've missed only one column, and that came when I was sick in a hospital bed.

I can honestly say that I've never regretted the plunge into rural journalism.

Some of the questions I asked myself when I decided to go ahead with writing a column were: How do you write a column? Will the editor want to print it?

I decided there was only one way to find out—write a column and get the editor's opinion.

Write Column Regularly

My first attempt was a page of several short items. The editor liked them and promised me a good location every week, provided the column was a regular feature.

One bit of advice he gave me that has always stuck with me when writing a column was this. Use plenty of local names to attract reader interest. Write about Farmer Doakes' experiences with fertilizer. And, don't forget to tell what a good meal Mrs. Johnson served during your last visit to the farm.

I've never forgotten that advice. I've found out that a person likes nothing better than to see his or her name in print. Telling of a good meal you had during a farm visit has no connection with agricultural education, but it certainly makes Mrs. Johnson feel good.

And, you'd be surprised how your invitations increase when you're out in the country. You can't mention all of them, but a complimentary remark now and then, regardless of its educational value, pays off.

My chief concern in writing a weekly column was that I would run "dry" on material. Actually, I've never had that experience in my three years of writing "Farm News 'N Views." I never make a farm visit or attend a meeting without my trusty companion—a pocket-sized notebook. I think that should be standard equipment for every county agent.

Whenever I see something of interest or if a farmer tells me of a practice that has worked well, I jot it down. Questions asked during office calls that seem timely or of general interest are noted on my scratch pad and filed until Saturday when I usually write my column.

"My 90 fall pigs are eating more alfalfa than my 20 dairy cows," a farmer told me one day.

To me that was interesting. Following up his statement to get information for my column, I asked him such things as: "How do you feed it? Do the pigs waste much? Does it save on the corn?"

Information such as this makes good material for my column. Then in the next paragraph I briefly discuss the importance of alfalfa in the ration for sows during gestation. I have found that practices are more readily accepted if you tie the practice down to a local farmer having the experience.

I've often wondered about asking a farmer for permission to use his comments and experiences in the column, but I've hardly ever asked their permission. I've come to the conclusion that people don't object to complimentary remarks. In fact, they like them.

State Releases Valuable

There have been a few times when I've run a little short of material. That's where releases from the state university come in handy. Rather than use this "canned" information as it is, however, I try to tie it in with a local farmer and his experiences.

Don't get the idea that writing a column is simple. To me it's a weekly task, especially when you have more work than hours in the day to finish it. But the advantages of the column far over-shadow the disadvantages.

Column Stimulates Interest

I am sure that my column has stimulated more interest in farm problems among the readers. One good indication of this is the increased number of office and telephone calls received since I first started writing the column.

A survey conducted recently in our newspaper by Readex, Inc., showed the column to have a male readership of 56 percent. Considering that the circulation of the newspaper is divided about 50-50 among farm and town dwellers, this could indicate that some persons in the city, who are interested in farming, are also reading my column.

The variety of topics and greater use of local names is perhaps the major factor contributing to increased readership, I believe.

Recently, I received a letter from a man in Baltimore, Md., wanting more information about something in my column. I have also had letters from as far away as Seattle, Wash.

I have noticed that news articles dealing with one subject or explaining some phase of farm activity that has no local

DEFEAT HOG CHOLERA on your FARM USE

The HOG CHOLERA VACCINE

True-Vac

with the Safety-Serum Balancer

BENEFIT 7 WAYS

- TRUE-VAC does not introduce virulent virus to your farm
- TRUE-VAC eliminates special diets and after-care
- TRUE-VAC is safe on pigs even before weaning
- TRUE-VAC establishes *solid* immunity
- TRUE-VAC uses standard 2 cc. dosage for all swine
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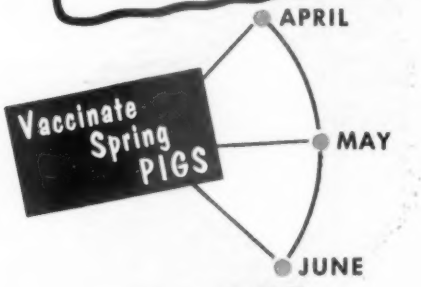
- with TRUE-VAC you do your own Vaccinating at Savings

RABBIT – PASSED • PORCINE – ORIGIN
MODIFIED LIVE-VIRUS VACCINE PROVED
IN FIELD TESTS ON THOUSANDS OF HOGS

In TRUE-VAC you have an advanced, safe product for your own use—an immunizing agent that overcomes drawbacks of common methods previously used—one that can be administered easily by the livestock owner—according to simple directions on every bottle. And because with 2cc. of TRUE-VAC you add the "plus" assurance of 10 cc. of Safety Serum Balancer, you get a safe, solid immunity, with no undesirable post-vaccination reactions.



Now is the TIME

to vaccinate your spring pigs with TRUE-VAC *BEFORE* the incidence of hog cholera starts to rise. Fresh stocks of TRUE-VAC are ready at your local dealers—to meet this seasonal demand.

get YOUR Supply TODAY!

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Yours FREE!

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I want the facts on TRUE-VAC. Please send my copy of Anchor's new folder to

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there's the *right* ORCHARD® BRAND product for *every* pest problem

Whatever crops you raise . . . you can always be sure of the best in plant protection when you use Orchard Brand spray materials.

That's because General Chemical's Orchard Brand insecticides and fungicides are built to give the smooth, even deposits, the high "kill," and the long-lasting control performance so important to commercial growers.

So whatever pest problems you have, you'll find General Chemical has developed the right product to do the job for you . . . efficiently, economically—under every field condition.

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DDD—Spray Powder & Emulsifiable Concentrate

ARSENICALS

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FUNGICIDES

ORGANIC FUNGICIDES

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GENICOP* Combined Insecticide-Fungicide

SEED PROTECTANT

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GENERAL CHEMICAL DIVISION
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connection get only a fraction of the readership the column enjoys.

Writing has never come easy to me and words don't flow from my typewriter, but I have found that any effort expended in writing a column has been well worth-while.

I'm sold on writing a weekly farm column.—*End.*

★

IDEAS that WORK

Winter Afternoon Meetings

The winter months in a wheat-livestock county such as Garfield county is a slack time for farmers. I reasoned that I should take advantage of this time to do a selling job on better farming practices.

With this in mind, working with a farmer planning group, a series of afternoon meetings were planned. The decision was to hold a meeting every Tuesday afternoon during the winter months with a different topic each week. To each of these meetings a specialist from the state college or a representative of business was invited as a guest.

The presentation was never formal but of a discussion nature. These meetings have been held for a period of two years now and the results are better farmer understanding. The meetings have taken in everything from figuring income tax to testing the soil and crop rotations.

In keeping a record of those attending this past year I found that about half of the farmers in the county had attended at least one of the meetings.

This has been a practical way of selling a farm program and has meant a lot to me as an agent. I find that this has helped me form a more practical program in the different phases of the farm operations. —Al Estep, county agent, Pomeroy, Wash.

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

★

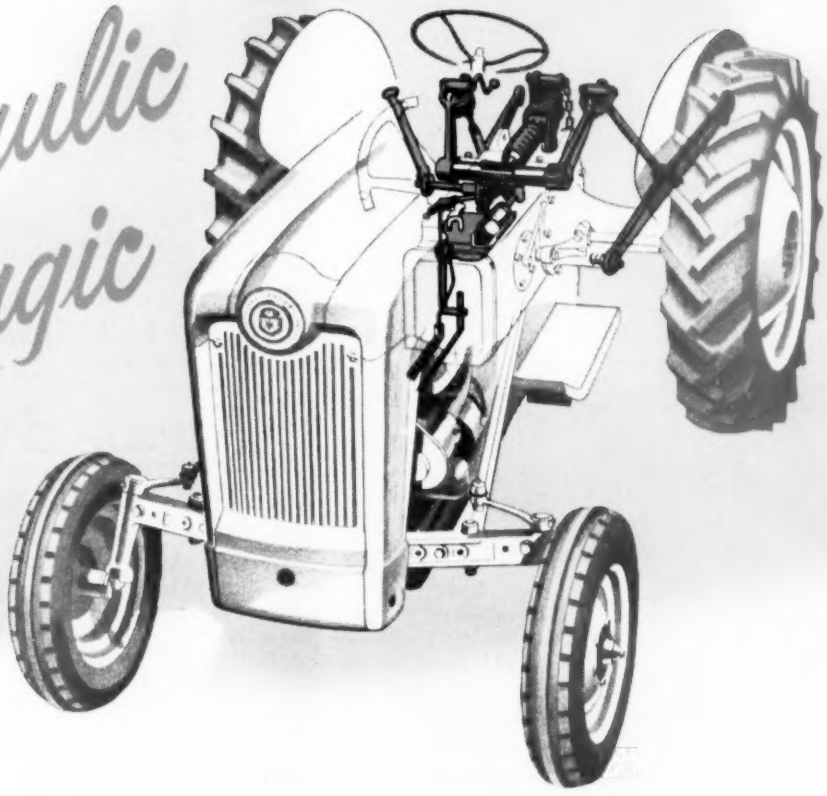
Pasture Weed Control

Studies at the Oklahoma A & M Experiment Station have shown that grass or hay production can be increased upward of 20 percent by eliminating perennial ragweed.

2,4-D can be used to control ragweed on pastures, and a once-over treatment properly applied at the right time will practically eliminate this weed. Cost of the chemical would be less than $1 per acre.

Oklahoma station workers believe that weed control in pastures is important.

Hydraulic Magic



in the New Ford Tractor *Golden Jubilee* MODEL

The trend toward boosting the efficiency of power farming and reducing human effort with hydraulics began nearly one million Ford-built Tractors ago. Now, it gains great new impetus. The new Ford Tractor's Live-Action Hydraulic System offers many new operating advantages and unfolds a great new range of usefulness never before achieved.

Gone is the wait for a pressure build up—the time lag between moving the control lever and getting hydraulic action. Almost magically the new Ford Tractor's Live-Action Hydraulic System responds instantly at any engine speed.

The engine-driven hydraulic pump delivers a volume of oil continuously. Whenever the engine is running, the hydraulic power is "there" for immediate use. Gear shifting and clutch pedaling are reduced to a minimum. Attaching implements is easier than ever.

More new magic in this system is the way Hy-Trol gives a choice of hydraulic speeds to fit the job, plus new efficiency of hydraulically operated remote-control equipment. In addition, Selec-Trol* permits operating either front or rear mounted equipment from the new Ford Tractor's Live-Action Hydraulic System.

Ford Tractor *Hydraulic Touch Control, Constant Draft Control, Implement Position Control*—all of these time-proved advantages are quickened in response, to make good farming more nearly automatic and less tiring. This hydraulic system's speed of response and the fast-acting governor of the new Ford "Red Tiger" Engine team up to deliver newer, smoother, more efficient power to farming operations.

Your nearby Ford Tractor dealer has your copy of the 24-page catalog that tells all about the new Ford Tractor. You'll probably find him in a hydraulic demonstrating mood, for he has "hydraulic magic" to show you.

DEARBORN MOTORS CORPORATION • Birmingham, Michigan
National Marketing Organization for the Ford Tractor and Dearborn Farm Equipment

Ford TRACTOR

Ford Farming
MEANS LESS WORK...MORE INCOME PER ACRE

*Sold separately

STEEL DOES IT BETTER...
CHANNELDRAIN
DOES IT
BEST!

"WHEELING
Channeldrain—
the only kind of
Roof for ME!"

"IT'S GOT
TRIPLE PROTECTION!"

1 EXTRA LAP!
Exclusive side lap gives added protection against leaks from driving rain, seepage, or capillary attraction.

2 EXTRA STRENGTH!
Rugged steel sheets with sturdy built-in deep sections give added rigidity for greater protection against wind and weather.

3 EXTRA RUST RESISTANCE!
A uniform, hot-applied protective pure zinc coating over Cop-R-Loy steel assures years of dependable, rust-free service.

When it rains
—it drains!

WHEELING CORRUGATING COMPANY
WHEELING, WEST VIRGINIA

Wheeling
CORRUGATING COMPANY

Atlanta Boston Buffalo Chicago
Columbus Detroit Kansas City Louisville
Minneapolis New Orleans New York
Philadelphia Richmond St. Louis

Here are a few of the county agents who attended the school. They are shown putting into practice the ideas and techniques suggested by commercial direct mail experts. Workshops provided them with an opportunity to prepare letters destined for future use.

Massachusetts County Agents Learn How to . . .

Sell Ideas By Mail

● ADVICE FROM THE experts and a chance to put it to actual use in workshops keynoted a three-day writing school on "Selling Ideas By Mail" for Bay state extension agents, specialists, and clerks at the Waltham, Mass., Field Station, March 10-12.

"Effective sales letters are never written the first time. It takes two or three tries to get the letter you want. You must feel that you can write a good letter and then do it!"

That was the advice of John Allyn, assistant copy director, Dickie-Raymond, Inc., Boston advertising concern, who discussed "How to Write to Sell." Representatives of commercial advertising agencies were main speakers at the school, covering the latest methods and techniques of writing sales letters with emphasis on how they could be adapted to extension.

Many Attend the School

The school was successful from an attendance standpoint and comments are still coming in to the committee.

The school attracted better than half of the agents in Massachusetts' 12 counties, plus state workers. About 60 agents and specialists attended the first day, about 50 the second day and 55, including 20 clerks, the third day.

Designed to provide training in circular letter writing and other forms of direct mail, the school also had special sessions for clerks on the third day.

Continuity was maintained throughout with talks and discussion on writing, layout, and illustrating each of the first two mornings.

Agents Write Letters

Workshops—at which agents and specialists actually wrote, rewrote and polished-off letters or other direct mailing pieces they intended to use later on—followed each afternoon. Commercial advertising men served as workshop leaders and helped extensioneers apply the hints, ideas, and suggestions given previously.

On the afternoon of the third day, the clerks actually did their normal job of typing, illustrating, and duplicating of the circular letters written by agents at the two workshop sessions. Copies of the letters were distributed and a general critique rounded out the day.

The display and use of mimeographing equipment, mechanics of stenciling, tips on drawing, tracing, and adapting material were featured that morning for clerks.

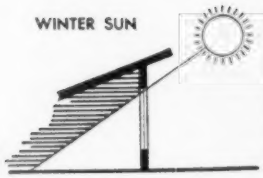
Circular Letter Contest

Another feature of the school was a circular letter contest which drew 60 entries. Fourteen were judged "excellent" by Professor Evan Hill, Boston University School of Public Relations and Communications, and are to be reproduced and sent to all workers. Professor Hill also talked on layout and illustrating.

Other speakers at the school included William B. Ward, head of the department of extension teaching and information, Cornell University, Ithaca, on "Selling Extension"; Julian Malkiel, Boston advertising man; and Roger Wolcott, extension visual aids specialist, University of Massachusetts, who spoke the last day on "Everyone Can Be An Artist."—*Radie H. Bunn, extension editor, University of Massachusetts.*

★

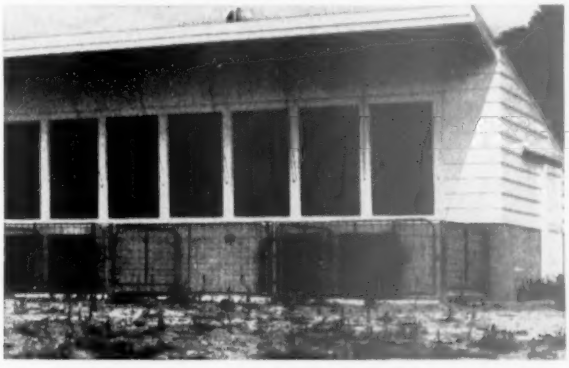
Buy Savings Bonds



Use the sun for WARMER, DRIER BUILDINGS in winter

Hog house located at Michigan State College, East Lansing.

Control the sun for COOLER BUILDINGS in summer



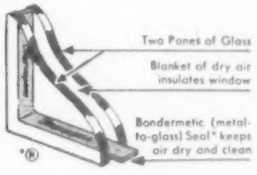
Sunshine has long been regarded as beneficial to animals. It provides winter warmth especially valuable in protecting pigs, calves, chicks and lambs. It has germicidal benefits. And in helping to keep buildings drier it contributes to a healthier environment for livestock.

When large glass areas are used for these winter benefits, windows should be insulated to reduce heat loss through glass and shaded to keep out unwanted summer sunshine.

Fortunately, nature makes sun control easy. The sun is low in the winter sky so that it penetrates deeply into buildings. In summer, its more vertical rays are easily shaded from windows. Getting sun when it is needed—and only when needed—is a matter of:

1. Orientation—placing the building on an east-west axis, with large windows facing south.
2. Shading—providing a roof overhang or other device which will allow winter sun to enter, but shade out summer sun.

Insulation helps keep heat out in summer, just as it helps keep heat in during the winter. That's another reason why *Thermopane*® insulating glass is being used more and more in farm service buildings. Widely used for winter warmth, *Thermopane* also provides extra summer protection. *Thermopane* is the easiest way to insulate windows. It is installed much like single glass, in frames made deeper to take care of its greater thickness.



LOF GLASS · PLASKON · FIBER GLASS

Thermopane INSULATING GLASS

Thermopane is now available in low-cost standard units made especially for farm service buildings—for fixed or ventilating sash of wood or steel.
Thermopane is sold by glass and building supply distributors and dealers throughout the U. S. Send the coupon for more information.

FREE FOLDER

"IMPROVED FARM BUILDING DAYLIGHTING"

Libbey-Owens-Ford Glass Co.
1965 Nicholas Bldg., Toledo 3, Ohio

Please send me a free copy of "Improved Farm Building Daylighting."

Name_____
(PLEASE PRINT)

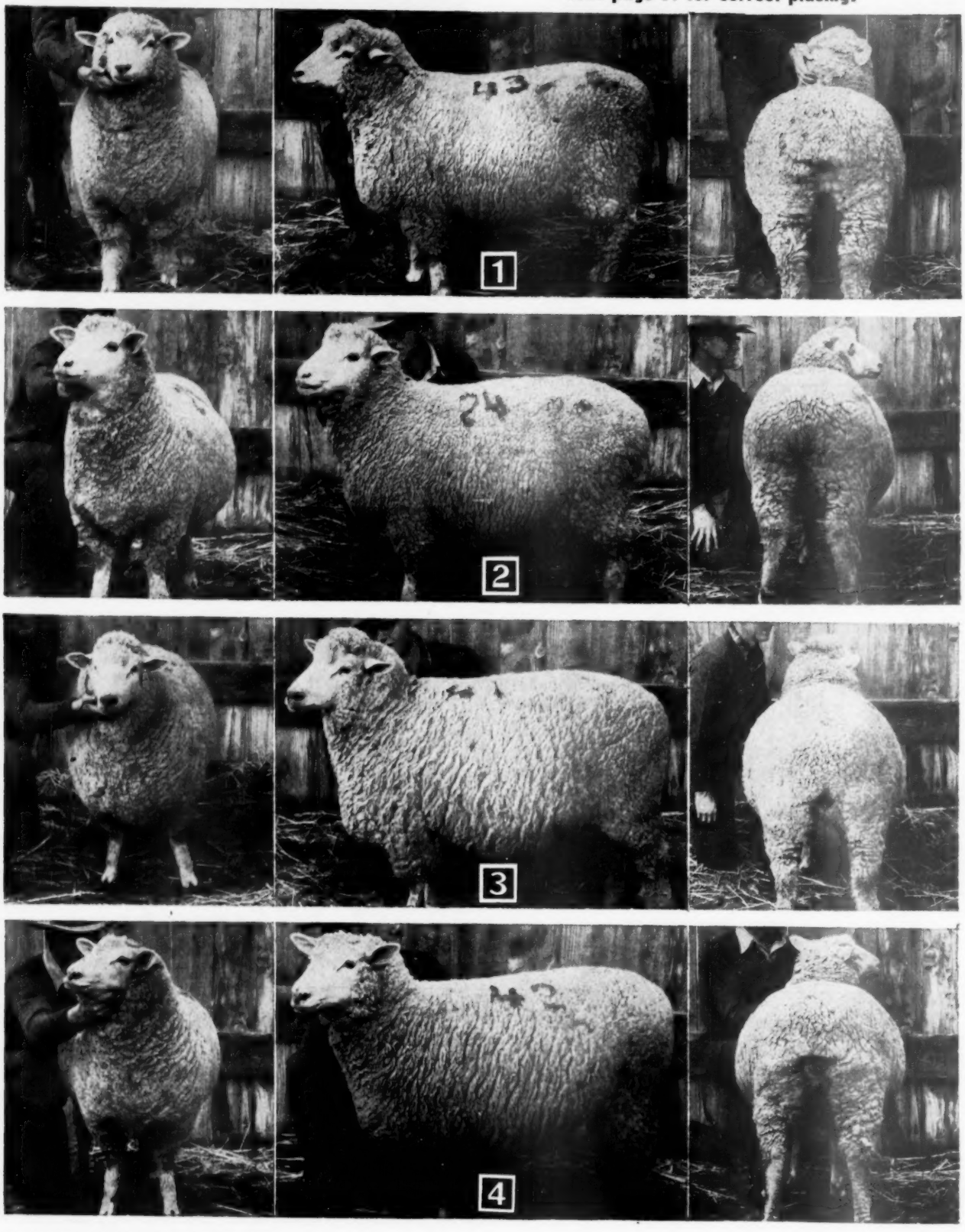
Address_____

Town_____ State_____

Judging PICTORIAL

How Would You Place These Columbia Ewes?

(See page 51 for correct placing)



TOXAPHENE
(Chlorinated Camphene containing 67-69% chlorine)
News Digest
UP-TO-DATE INFORMATION ABOUT TOXAPHENE AS AN AGRICULTURAL INSECTICIDE

PUBLISHED PERIODICALLY BY HERCULES POWDER COMPANY

JUNE 1953

BOLL WEEVIL INFESTATION IS GROWING; OTHER INSECTS THREATEN FARM YIELDS

Insect pests struck at the nation's crops with a vengeance in May, and losses already suffered may be only a fraction of what can be expected if destructive insects are not controlled. Heavy boll weevil infestations, which have been reported from the Carolinas to Texas, appear to be the chief cause for concern throughout this vast area.

Will cotton insect pests ruin this crop?

—Soil Conservation Service photo

Toxaphene Controls Over 150 Species Of Insect Pests

Current recommendations of 44 states and the United States Department of Agriculture list toxaphene insecticides for the effective control of a total of more than 150 different insect pests.

Only four states—Maine, Nevada, New Hampshire, and Rhode Island—have not issued official toxaphene recommendations. The USDA lists toxaphene for the control of 49 species of destructive insects which attack a great variety of crops. This list includes several insects harmful to livestock.

California recommends toxaphene for control of 35 insect pests, Texas for 30, Florida for 27, and Mississippi for 24. Altogether, more than 525 separate toxaphene recommendations are now in effect in the United States. Toxaphene formulations are being used successfully in 54 foreign countries. Tests to evaluate toxaphene insecticides are being conducted all over the world, and the list of recommendations is growing rapidly.

One of the great advantages of toxaphene is its outstanding economy. In cotton insect pest control, for example, finished toxaphene spray formulations in most areas will cost the farmer only 42 cents to treat one acre of cotton with one pound of actual toxaphene.

The abnormally high percentage of over-wintering boll weevils which survived the mild winter, along with abundant rainfall during the month, produced a rapidly growing weevil population. Cotton authorities warn farmers that fields should be examined regularly and a proper poisoning schedule be started to prevent the outbreaks from getting completely out of hand. Cotton losses from thrips, fleahoppers, and cutworms have already been heavy in some states within the Cotton Belt.

In other parts of the country, armyworm and cutworm outbreaks in pastures were general, and spittlebug infestations reached their peak. Lygus damage to wheat and alfalfa in Utah was reported. Insecticides were used widely throughout the Midwest and the Middle Atlantic states to protect alfalfa and clover from spittlebugs. The intensive educational campaigns which the state Extension Services conducted were credited with saving thousands of tons of hay from these insect pests.

Toxaphene continues to be a preferred insecticide wherever crops are grown. Tests conducted at Clemson College on over 350 commercial cotton poisons show that the ones based on toxaphene killed a higher percentage of boll weevils, and killed them faster, than other poisons tested at equal dosages.

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Texas Cotton Grower Uses Toxaphene For Better Yields at Lower Cost

John W. Alsobrook of Rio Hondo, Texas, is one of the many successful growers in the rich Rio Grande Valley who use toxaphene insecticides for economical control of cotton insect pests.

In 1952, when some of his neighbors suffered complete loss of their crops to insects, Alsobrook made a bale and a half of lint per acre from his cotton.

Toxaphene, he says, was responsible for bringing the crop to maturity with very little insect damage. Following the local insect-control-guide recommendations, Alsobrook applied toxaphene in liquid form at weekly intervals during the early-season control period. The treatment was so successful that he continued with toxaphene all season.

As his cotton matured, he changed to dust, using 20% toxaphene, sometimes applying it as heavily as 30 pounds per acre per application. He reports that his cotton suffered almost no insect damage, although nearby fields were infested heavily.

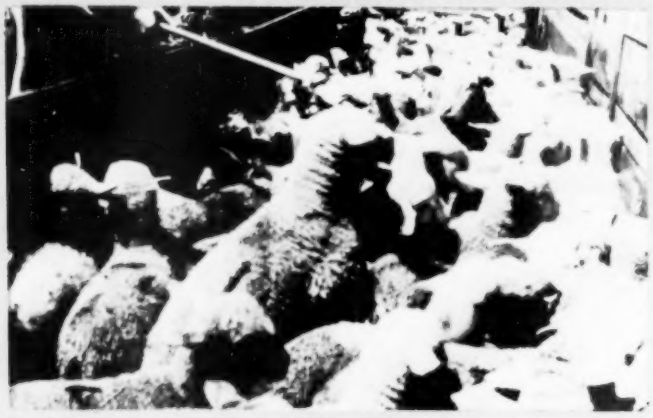
Like most growers in the Rio Grande Valley, Alsobrook is sold on toxaphene because it produces results at low cost.

JOHN W. ALSOBROOK

Following the local recommendations for early-season control cost him only 63 cents per acre per application for his toxaphene materials.

Alsobrook is using toxaphene throughout the season again this year, and intends to use other insecticides in combination with toxaphene only in the event of a heavy buildup of aphids or pink bollworms.

SHEEP TICKS CONTROLLED BY NEW METHOD



Entomologists recommend spraying for sheep tick control before fleeces are two inches long. Good control depends on a thorough wetting of the fleece.

Sheep ticks can be controlled with low-pressure insecticide sprays if dipping facilities are not available, according to a recent issue of *Agricultural Research*, publication of the Agricultural Research Administration.

The publication reported that shorn ewes and short-fleeced lambs sprayed with insecticides in April, May, and June with low-pressure applications were protected 100 per cent for four to six months. Spraying in fall and winter—when fleeces were heavier—also gave good results, with 94 to 100 per cent control effective for a period of four months or longer.

"The best way to do the job," *Agricultural Research* said, "is to crowd the sheep into a pen and soak them with a coarse, rainlike spray. Use two to eight quarts of spray per animal, depending on the size of the sheep and the thickness of the fleece."

Toxaphene was one of the materials named in the article for excellent sheep tick control. The USDA and several important sheep-raising states recommend toxaphene sprays for effective control of this insect pest at low cost.

The editors welcome contributions to this column

The USDA will use radioactivity in an effort to find out how far and how fast insects fly, how an insecticide kills an insect, and just how some insects develop resistance to insecticides.

In previous Bureau of Entomology and Plant Quarantine experiments, blowflies "tagged" with radioisotopes were detected by Geiger counters in traps 20 and 28 miles from the point of release. The work requires many precautions. Workers check their own exposure to rays by carrying photographic plates in their pockets. A fogged plate indicates faulty technique and a speedy change in the handling of radioactive material.

* * *

The mild piney odor of toxaphene seems to appeal to insecticide dealers as well as farmers. For example, one dealer, the Patry Implement Stores of Medina, Ohio, has come right out and written customers he is stocking only toxaphene again this season because some other insecticides make the farmer (and, remember, we're quoting) "about as welcome in his own home as the cute little kitten that has a white stripe down its back."

* * *

The May issue of *Farm Journal* gives some last-minute information on control of flies. An article, "How to Kill Flies in 1953," was written by Stirling Kyd, Missouri Extension Entomologist. The residual sprays—among them, toxaphene—were recommended as the easiest way to keep down flies.

"If you hit on a method or combination that gets the job done—keep using it," says Mr. Kyd. "If it quits working, try something else."

* * *

And toxaphene is now used in the control of hog mange. The Bureau of Animal Industry finds the material is effective at the rate of one part of toxaphene to 200 parts of water in a sprayer having 200-pound nozzle pressure.

* * *

An Associated Press story says that Lord Nelson's flagship, *Victory*, has become infested with death watch beetles. The pests are eating away the wooden hull of the famous vessel, which is now moored at Portsmouth, England.

A London x-ray specialist has recommended that radioactive pellets be placed inside the hull to bombard the beetles. One expert said, "The rays will not kill the beetles, but they should sterilize them. The present beetle generation on the *Victory* would be the last."

4-H'ers Learn Valuable Lessons from Work in Entomology Program

In 40 states throughout the country, 4-H boys and girls are working diligently in the 1953 National 4-H Entomology Awards Program. Their efforts will be climaxed at the National Congress, which will be held November 29 through December 3, in Chicago.

County winners will receive a gold-filled medal, and state winners will receive a 17-jewel wrist watch. But the real ambition of the 4-H boys and girls is to win a trip to the National 4-H Club Congress and a college scholarship. This will not be easy, for competition is keen. For the second consecutive year, Hercules Powder Company, donor of the medals and wrist watches, will offer a trip to the Congress to each of the 12 sectional winners, and six scholarships of $300 each to the national winners.

MARTHA HARRIS

The rewards are well worth the effort, as 4-H'ers who took part in last year's program will tell you. *Martha L. Harris* of Hollister, California, says, "In this 4-H Entomology Project I have learned how important, and fascinating, insect study is. Through talks, demonstrations, and exhibits I have tried to arouse more interest in this very important study. I have recently been asked several times to exhibit my collection and to talk on insect study to different groups." (Martha's collection includes 697 insects, with 19 orders represented and 281 insects classified.)

BEEMAN KEEN, JR.

Beeman C. Keen, Jr., of Adrian, Georgia, writes, "I like my entomology work so well that I have decided to minor in entomology at the University of Georgia, where I am a junior."

Ellsworth P. Christmas, Chandler, Indiana, says, "The study of entomology has really been worthwhile and I think any boy or girl would profit by entering this project. My 4-H work has helped me in my school work. Any boy or girl interested in this kind of work does not have to seek recreation."

ELLSWORTH CHRISTMAS

John Wayman Sowell, Canton, Mississippi, brought out another good point. "I had never realized the damage that insects and parasites do until starting and becoming interested in the 4-H entomology project. What I cannot understand is why farmers and cattlemen are spending lots of money for fertilizer and labor for growing cotton and letting the boll weevil and other insect pests eat it up when they could control these insects at a very low cost with the insecticides that we have on the market today."

JOHN SOWELL

John A. Mask, Oak Grove, Virginia, summed up the advantages of his entomology work with these words, "In a way, working with insects has given me an opportunity to appreciate more fully the possibilities of rural life. I have not much land about my home so have tried to express myself in other ways. Many people have seen my collection and say that I have a great future in it. I hope some day to attend college and further my education in this field." (John is in great demand for insect demonstrations and talks and has displayed his collection widely.)

JOHN MASK

Cotton Bale of 1862 Is In New Orleans Cotton Exchange

What is reportedly the oldest bale of cotton in existence is now preserved in a glass case on the floor of the New Orleans Cotton Exchange.

It was produced in 1862 by John Peden of Oktibbeha County, Mississippi, a rather eccentric farmer who stockpiled his crop on his veranda for years, selling only enough cotton each year to take care of his immediate needs. The bale, picked and ginned entirely by slave labor, was exhibited at the Chicago World's Fair in 1893, and again at the St. Louis World's Fair in 1904.

RECENT STUDY SHOWS HOW INSECT CONTROL PAYS OFF

Where cotton insecticide applications were made, income increased at the average of $768 per farm, according to a farm management study made by the Texas Agricultural Experiment Station. The study was made on farms in the Waco-Hillsboro area of central Texas.

Even though the insecticide applications were made at a rate less than that recommended by entomologists, the yield from farms where applications were made averaged 35 pounds of lint cotton per acre over the untreated fields.

Subtracting $2.90 per acre for the cost of materials, use of equipment, and labor from the added income of $12.60 per acre, left a profit of $9.70. Additional harvesting and ginning costs of $1.70 per acre (less a credit for seed) was allowed. This sum was also subtracted, leaving a net increase of $8.00 per acre. Multiplied by 96 (the average cotton acreage on the farms using insecticides) the increased income amounted to $768 for each farm included in the study.

More Information About Northernmost Cotton Production

Several comments have reached the TOXAPHENE NEWS DIGEST in answer to our question about the most northern point where cotton is grown.

Tehama County, California, a foremost cotton authority reports, is the northernmost area in the United States where cotton is now produced commercially. Most of the county is north of the 40th degree of latitude.

Glenn County, Yuba County, and San Joaquin County, California, were also identified as far northern cotton-producing sections. Several counties in Virginia which grow cotton are north of 37 degrees, while even in Missouri some cotton is grown north of Marble Hill, our original nomination for the honor.

Prof. R. W. Harned, well-known entomologist of the USDA, says, "Determining in each region the northern limits of successful cotton production is a matter of interest and importance. I hope . . . much new information on this subject may become available."

Conducting Research at Hercules Biological Laboratory

Left to right: George J. Stessel, J. Ralph Hansen, Hugh C. Palmer, E. N. Woodbury, Robert E. Ogle, Keith D. Ihde, and Harrie M. Taft.

These are the men who will lead the research work on new farm chemicals at Hercules Powder Company's biological laboratory which opened last month. Applied research on insecticides, fungicides, herbicides, and defoliants will be carried on in the main laboratory building and the two greenhouses.

Dr. E. N. Woodbury, chief entomologist for Hercules, heads the staff. He has been with the company since October, 1943. A graduate of Ohio Wesleyan University with a B.A. degree in zoology, Dr. Woodbury did graduate work at Ohio State University, where he received his Ph.D. degree in entomology. Before joining Hercules, he was on the staff of the Crop Protection Institute at State College, Pa.

Hugh C. Palmer is in charge of the work on plant pathology. He holds a B.Sc. degree in agriculture, and a M.Sc. degree in botany and plant pathology from Ohio State, and has done additional graduate work in the subject. Before coming to Hercules, he was principal plant pathologist at the Battelle Memorial Institute in Columbus.

Also working on plant pathology is Dr. George J. Stessel, who was formerly with the State Natural History Survey Division at Urbana, Ill. Dr. Stessel attended the University of Connecticut and Clark University, receiving his A.B. degree in biology from the latter. He did graduate work in plant pathology at the University of Wisconsin, where he earned his M.S. and Ph.D. degrees. From 1947 to 1951 he was a graduate research assistant at Wisconsin. Dr. Stessel is the author of several scientific articles in the field of plant pathology.

The research on plant response chemicals will be headed by Dr. J. Ralph Hansen, a native of Arizona. Dr. Hansen did work on his B.S.A. and M.S. degrees in agronomy at the University of Arizona, and later received his Ph.D. in agronomy from the University of Wisconsin. Before joining the Hercules staff, he was assistant agronomist at the University of Kentucky Agriculture Experiment Station at Lexington.

Dr. Robert E. Ogle will concentrate on plant response chemicals. A graduate of the University of Tennessee with a B.S. degree in horticulture, he received his M.S. degree from Louisiana State University, and his Ph.D. from Purdue University in the same subject. He has served as a graduate assistant at Purdue for the past three years.

In charge of entomological research is Dr. Keith D. Ihde. Dr. Ihde attended Carroll College for two years, then transferred to the University of Wisconsin, where he received his B.A. degree in zoology and his M.S. and Ph.D. degrees in entomology.

Working with Dr. Ihde is Harrie M. Taft. He attended Bryant College in Providence, R. I., where he received his B.S. degree in business administration. Following this, he studied at the University of Rhode Island and earned his B.S. degree in biology, then received his M.S. degree in entomology from Rutgers University. While at Rutgers, he worked as a research fellow.

This is your Paper

The rapidly growing acceptance of toxaphene agricultural insecticides has created a demand for current information on their development and use.

Look to the NEWS DIGEST as your authority on toxaphene. We welcome your letters. Address all material to the Editors, TOXAPHENE NEWS DIGEST, Room 923, Delaware Trust Building, Wilmington 99, Del.

THE CHEMICAL BASE FOR TOXAPHENE INSECTICIDES IS PRODUCED BY HERCULES FROM THE SOUTHERN PINE

NAVAL STORES DEPARTMENT

HERCULES POWDER COMPANY

Wilmington 99, Delaware

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With the County Agents

COUNTY AGENT BROWN RECEIVES PRAISE—Joe T. Brown, vice president of NACAA, recently received praise from Bernard DeVoto, Boston, winner of the Pulitzer Prize in 1947, and editor of Harper's Magazine "Easy Chair" feature.

DeVoto, following a 21-hour viewing of TV, wrote in the March issue of Harpers': "There was, for instance, a half-hour by the Massachusetts extension service, which dealt mostly with beef cattle, the cuts of beef, and a review of retail food prices. Its straightforward approach was admirable and I wanted to see more of it, though I am not one to wonder how much broccoli costs this morning."

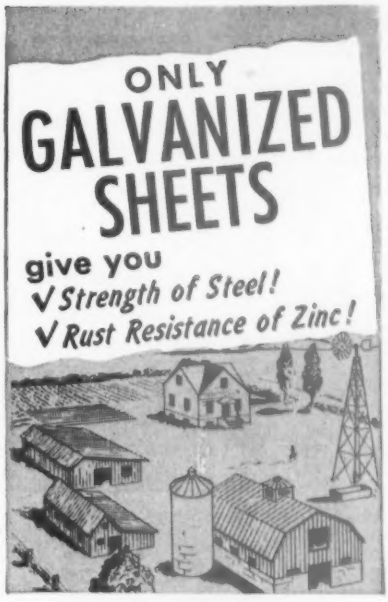
DeVoto was referring to the "Down to Earth" TV program of which Joe T. Brown is Master of Ceremonies.

OHIO ANNOUNCES OFFICERS AND COMMITTEE CHAIRMEN—Ohio County Extension Agents Association officers, directors, and committee chairmen for 1953 are: S. N. McIntosh, Millersburg, O., president; Charles E. Blakeslee, Pomeroy, O., vice president; and Vivian L. Johnson, Zanesville, O., secretary-treasurer. Committee chairmen: Don Fogg, 4-H Club; Iris Macumber, Flower; C. N. McGrew, Professional Improvement; John Vermilya, Research & Marketing; Marshall Whisler, Camp Ohio Trustee; Oscar Share, Insurance Retirement; Sam Cashman, Transportation; George Ganyard, Relationships; Irma Ramseyer, Service Recognition; Ross Milner, Salary Study; and Francis Dalrymple, 4-H Foundation.

AGENT SUMMARIZES YEAR'S ACTIVITIES—H. J. Vruwink, member of the NACAA Information committee, reports that County Agent Andy Bosch of McIntosh county in North Dakota, sent a summary of the year's activities to his Program Planning committee, Board of County Commissioners, Homemaker Club presidents, and members of the County Agricultural Research and Education committee. It contained a breakdown of the subjects on which farmers sought information. Institutes covered the topics of soils, tillage practices, crops, diseases, livestock, and management. Two purebred animal sales were sponsored. Demonstrations were held on weed control, grass silage, dairy sanitation, feeding, and pest control.

New extension agent appointments include: Robert Woods to Adams, and

This is a group of Iowa county agents inspecting a trench silo on the Howard Green farm near Glenbeulah, Wis. They attended the dairy farm and plant tour sponsored by the Eastern Iowa Artificial Breeding Association.



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for everybody in America lives better because we have railroads which, every day in the year, haul for you—and for every other man, woman and child in the country—an average of more than 10 tons of freight a mile.
That's more freight than is moved by all other forms of transportation put together—and it is moved at a lower average cost than by any other form of general transportation.
Last year, for the sixth time in a row, railroad freight trains set a new efficiency record—hauling more goods, on the average, and hauling them faster, than ever before.
And these trains are important to you because they help keep down the cost of the things you eat, wear and use—and help make your highways safer and longer lasting.
Association of American Railroads
WASHINGTON 6, D.C.
You'll enjoy THE RAILROAD HOUR every Monday evening on NBC.

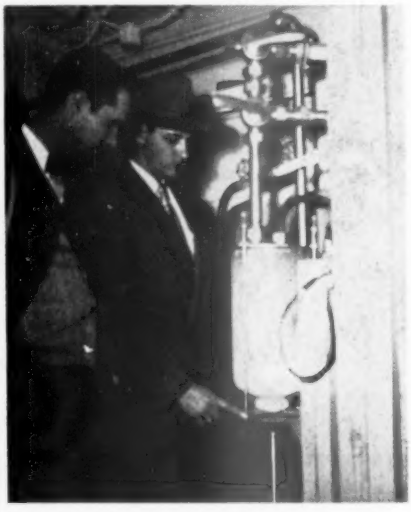
. . . Iowa agents treated to dairy tour.

Morris Nelson as assistant in McLean county. Both are graduates of NDAC. Woods has been farm manager of Hettinger Experiment Station. Nelson operated a farm in North Dakota.

IDAHO AGENT APPOINTED—Lynn Stevenson has been named county agent for Custer county located at Challis, Ida. Lynn is a University of Idaho graduate, worked as a vocational agricultural instructor and also worked for the Soil Conservation Service before he was appointed to the county agent position.

IOWA AGENTS GO ON TOUR—A group of county extension directors from Iowa were taken on a tour of dairy farms and plants to study dairy marketing in Minnesota, Wisconsin, and Illinois. The tour was organized and sponsored by the Eastern Iowa Artificial Breeding Association.

Burns Byram, ex county agent and fieldman for the Artificial Breeding Association, helped organize and sponsor the tour. Fred Clark, district extension supervisor, assembled the group and assisted in arranging for the stops. Henry Homme, dairy marketing specialist from Iowa State College, L. J. Bodensteiner, district farm management specialist from the college, Norbert Kash, Iowa State



Robert Hall and Ralph Poynter, two Iowa county extension directors, inspecting the pipeline at the University of Illinois dairy farm that remained in place for over two years. This is one of the points of interest to the Iowa county extension directors as they made a tour of the dairy plants and dairy farms in Minnesota, Wisconsin, and Illinois. The tour was sponsored by the Eastern Iowa Artificial Breeding Association.

Dairy Association, Dallas McGinnis, farm news editor of the Radio Station KXEL at Waterloo, Ia., and Ray Anderson, farm editor of the Farm Journal.

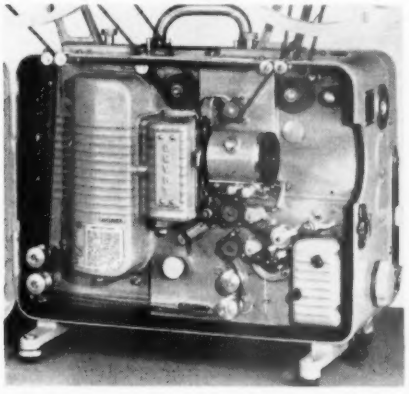
The 18 county agents attending the tour were: F. C. O'Riley, Allamakee county; Paul Barger, Black Hawk; Ralph Poynter, Bremer; Jay Partridge, Buchanan; Arthur J. Hibray, Butler; Richard Franklin, Cerro Gordo; Dean Barnes, Chickasaw; Adrian Gamble, Clayton; Norman J. Goodwin, Clinton; Robert E. Hall, Delaware; Lyman A. Bailey, Dickinson; Robert B. Miller, Dubuque; Melvin C. Wangness, Fayette; Eber W. Eldridge, Franklin; Paul N. Payne, Howard; Joe E. Legg, Jones; C. E. Herriott, Linn; and Forrest J. Kohrt, Marion.—*End.*

★

Projector Trade-In Plan

The DeVry Corporation, manufacturers of motion picture projectors, have announced that their nationwide dealer organization has initiated a trade-in plan for 16 mm. projectors.

This plan was inaugurated in order to make it easier for schools, churches, and



This is the new JAN 16 mm. sound motion picture projector that has been developed by the DeVry Corporation. It gives brilliant, clear pictures and remarkable natural sound. Full information can be obtained by writing to the DeVry Corp., 1111 Armitage Ave., Chicago 14, Ill.

countless other users, to replace their present equipment with a new projector.

Through this trade-in plan, anyone may take the present market price of their old sound or silent projectors and apply it against the purchase price of new DeVry equipment. This will help many institutions solve the problem of how to obtain new equipment.

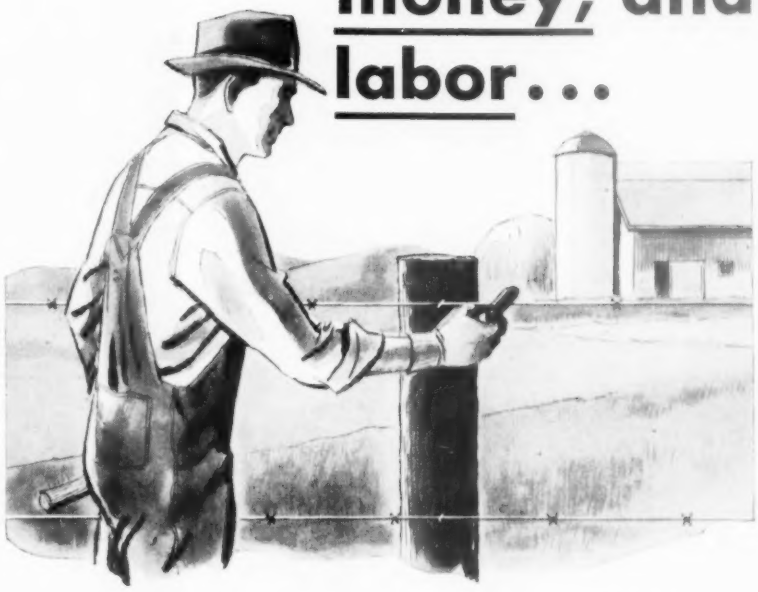
★

Acknowledged . . .

Husband (driving his car past a farmer's span of mules which happened to bray at that moment): "Relatives of yours, I suppose."

Wife (smiling sweetly): "Yes, by marriage."

Save the farmer time, money, and labor...



Recommend pressure-creosoted fence posts

● When you recommend pressure-creosoted fence posts, you're doing the farmer a *real* service. Since pressure-creosoted posts last 3 to 5 times longer than most types of untreated posts, repair and replacement costs are reduced to the barest minimum. Money, time, and labor, normally spent repairing or replacing deteriorated posts, can be devoted to more important jobs.

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Tips on Teaching Farm Management

What To Teach

1. **Analyze Operator's Objectives**
2. **Set Farm Plan Period**
3. **Select Best Farm Enterprises**
4. **Study Business Volume**
5. **Understand Price Trends**
6. **Put First Things First**

James Wallace

By James J. Wallace
Agricultural Foundation Farms
Iowa State College

● DURING THE PAST year I have had the interesting experience of talking farm management at the state meetings of vocational agriculture teachers in 11 different states. In all states I had this same question asked me: "How can I teach farm management? This is the weakest part of my teaching program. I need help."

No farm management specialist should try to tell you how to teach. This is your specialty. But perhaps we can give you a little help on what to teach.

Let us approach the problem in this way. What training in farm management should the farm manager have to be successful? Is not the training of successful farm managers the end product of any agricultural education or extension program?

Analyze Objectives First

First, the young farmer should be taught to analyze carefully the objectives of his management program. One of his objectives will be to maximize net income. But this will be modified by his desire for security and for other personal satisfactions. The amount of emphasis placed on these things will vary with different people.

The phase of the life cycle in which the individual finds himself will have an important bearing on management goals. When a young fellow is starting out and is extremely short of capital, profit with financial security is a more important goal than it is for the older operator who is out of debt, has adequate cash reserves, with reduced family demands on the pocket-book.

For the sake of simplicity in our approach let us assume that financial progress is a major management objective.

The operator, then, should be taught how to measure progress. A combination of net income and personal net worth are two figures that deserve a lot of attention.

He should be taught what these figures mean. How do you arrive at them? What is a simple method of accounting that will give him these figures for his own business?

Next, he should be taught to carefully think through and understand the importance of the length of his planning period on a particular farm. Is he trying to maximize income on this farm for only one year? For a five year period? For a lifetime?

This will definitely make a difference in his attitude toward soil conservation, his allocation of labor, and his use of money in the business.

For example, a man who is renting a farm and expects to be on that farm for only one year should buy nitrogen fertilizers for grain rather than use the same money to purchase phosphate fertilizer and lime for his new seedings of grass and legumes.

"You will note this is directed particularly to vo-ag teachers. Nevertheless, the principles are just as applicable to county agents and extension workers," said James J. Wallace.

We agree with him whole-heartedly. County agents and extension workers will find this a very practical and down-to-earth article written for all ag leaders on farm management and how to teach it to young and adult farmers.

It's down-to-earth, stated very clearly and simply, and any ag leader can use the points to help his farm people get more from their farming enterprise.

Study Farm Enterprises

A farm manager should know how to combine different enterprises on the farm. Which combination makes up the most profitable balance for this particular farm, for this particular operator?

Some enterprises compete sharply with each other for the operator's time, capital, and land. Others tend to complement each other in making a full use of available labor throughout the year.

For instance, soybeans compete with corn for labor and land more severely than does oats or wheat. Steer feeding competes with hogs for grain feed more than does the beef cow and calf enterprise. The dairy herd has a particular advantage on a small farm where there must be a large acreage of grass and legumes.

The beef cow and calf enterprise calls for more acres to attain equal volume. Hog raising and cattle feeding are adapted to heavy grain producing areas. Many other examples can be cited.

Stress Maximum Production

The cropping program presents many alternative opportunities. Emphasis should be placed on maximum total production of the most profitable crops rather than on highest yield per acre. The two do not necessarily go together.

Next, selection of the most profitable volume of business is important. How

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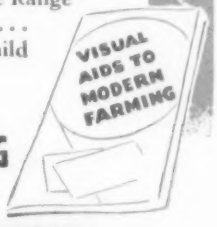

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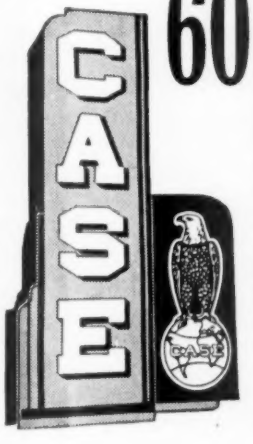

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Make a note...

Check these important highlights

✓ 25th Anniversary—Future Farmers of America

Leading authorities in agricultural education, FFA and 4-H work will review the history . . . outline the future for farm youth organization.

✓ 50th Anniversary—USDA Extension Service

C. M. Ferguson, Director, USDA Extension will highlight the past, present and future of this important field.

✓ 25th Anniversary— Better Farming Methods

The No. 1 business magazine for key leaders in agriculture celebrates its own 25th year of publication with a review of 25 years in this vital leadership field.

Don't miss this valuable issue!

Your Business Magazine

many acres should the farm contain? How intensive should the cropping program be? How many cows should be kept? How many hogs should be raised? How large should the poultry flock be? How much feed should he buy to supplement what he can produce?

A farmer should know how to gear the volume of business to his personal capacity, his finances, and his expectation of price movements.

How can you help this future farm operator improve his "batting average" as a price forecaster? Price expectations dominate many of his management decisions. He must predict prices regardless of difficulties and uncertainties that are so evident.

Study Price Trends

A knowledge of normal seasonal price trends for crops and livestock products is essential. How does the business cycle operate? What indices should be watched as an indication of the current trend of the general price level? How does the price mechanism operate? What establishes prices? What are some useful sources of current price outlook information? The agricultural leader can help a great deal with this problem.

Put First Things First

Finally, ag leaders need to sharpen their students' judgment in dealing with the ever present problem of putting first things first. Dozens of daily decisions must be made on the farm. What shall I do today? Mow hay? Cultivate corn? Cut weeds? Move the pigs to clean pasture?

A crib of corn, a truck load of hogs or of fat cattle has been sold. Where shall I use the first hundred dollars, the second hundred, the third, etc.?

The needs on many farms are almost unlimited—for fencing, hired labor, fertilizer, feed, equipment, debt reduction, and family living.

On most farms labor and money are limited. Each hour of labor and each dollar of available finances should be used where it will bring the highest possible return. It is not enough that the returns from each venture exceed costs. Maximizing net farm income demands that every hour of labor and every dollar be used where it will return the highest possible profit.

Develop Your Own Methods

This is farm management. If you want to teach it, this is what should be taught. It is a difficult task to do well. There is no easy way. I know, because I am trying to teach it to a class of college seniors.

You will have to explore various methods, trying first one device and then another. You will have to develop teach-

ing techniques that are adapted to your own talents and to your group.

Local farms provide a ready made laboratory. You will be amazed to discover how much printed background material is available at your state agricultural college.

So get started. You will improve your effectiveness as time goes on. You will find your effort interesting, stimulating, and a real challenge.—*End.*

★

Pfizer Research Farm

On April 14, Chas. Pfizer Company, Inc., formally opened a large experimental farm and laboratories, located on a 700-acre tract of land just outside Terre Haute, Ind.

This research center combines laboratories for research in both animal nutrition and veterinary medicine. The veterinary medicine center and the animal nutrition center are maintained separately though the work of the two is coordinated.

Here is an airplane view of the laboratory buildings where nutrition research is being carried on by Pfizer & Company at their Terre Haute, Ind., research farm. This was formerly a government ordnance works.

At their formal opening, the following research accomplishments by the company were announced.

1. Announcement of a successful treatment for the incurable air sac infection of chickens, utilizing an injection of terramycin.

2. A report on veterinary research which points the way to treatment of diseases of cattle, hogs, sheep (as well as poultry) with antibiotics in feed or water.

3. Presentation of laboratory research indicating that no antibiotic is carried over into the egg, even when hens are fed antibiotics at high levels.

4. Announcement of baby-pig feeding experiments that show gains as high as 37 percent over sow-suckled, when experimental pigs were fed only antibiotic fortified dry synthetic milk and dry pig starter.

The research laboratories are headed by Herbert G. Luther, director of agricultural development for the Pfizer Company and Dr. James McGinnis, noted poultry nutritionist.

POLAND CHINAS DOMINATE SPRING MARKET HOG SHOWS

With fat trim now selling for less than one-third the price of live hogs, the Judges at the state Market Hog shows across the Cornbelt this spring hewed close to the meat type line. Their selections uniformly reflected the current market demand for more lean meat, with less lard trim.

This trend is being forceably brought home to hog raisers everywhere as more and more markets turn to buying hogs on a quality basis. Spreads between the meaty and lardy kind vary from one section of the country to another with as much as 50c per cwt. prevailing in one area for hogs of the same live weight. Whether your hogs are meaty or lardy will certainly greatly affect your future hog profits.

A survey of the championship awards at these state shows this spring, show that Poland Chinas were found to most nearly meet present day market requirements three times as often as any other breed—as often in fact as all other breeds combined. See table below.

The fact that these judges, representing all phases of the industry, found good doing, rugged, heavy muscled Poland Chinas to meet these demands better than any other breed, comes as welcome news to the every day hog raiser who has shuddered to think that he might have to raise a delicate, slow growing, unsightly type of hog in order to meet today's market requirements for more lean meat.

The meaty kind it took to win.

In placing Poland Chinas so overwhelmingly at the head of the meat-type parade, the judges were backed up by tests conducted at Iowa State College last summer. There good doing, heavy muscled Poland Chinas averaged 196 lbs. at only 5 months of age, yet cut out better than 48% of their live weight in trimmed, lean primal cuts. 1.2% more in fact (roughly $1.00 per head more), than any other breed or cross tested! In the pork carcass contest at the Waterloo (Iowa) Meat Animal Show last fall, Polands proved to be worth 74c per cwt. live wt. more than the average of all other hogs entered!

Now is the time to insure your future hog profits by changing to good doing, premium quality Poland Chinas. Write the Poland China Record Association, 501-M East Losey St., Galesburg, Illinois, for names of breeders near you.

1953 Spring Market Hog Show Champions

Show	Champion Barrow	Champion Pen	Champion Carcass
OHIO	POLAND CHINA	POLAND CHINAS	Yorkshire
INDIANA	Yorkshire	POLAND CHINAS	Yorkshire
ILLINOIS	Berkshire	Berkshire	Berkshire
MICHIGAN	POLAND CHINA	POLAND CHINAS	Crossbred
IOWA	Hampshire	POLAND CHINAS	No Show
MINNESOTA	Crossbred	Crossbred	No Show
WISCONSIN	POLAND CHINA	POLAND CHINAS	POLAND CHINA

Grand Champion Trucklot—POLAND CHINAS

—*Adv.*

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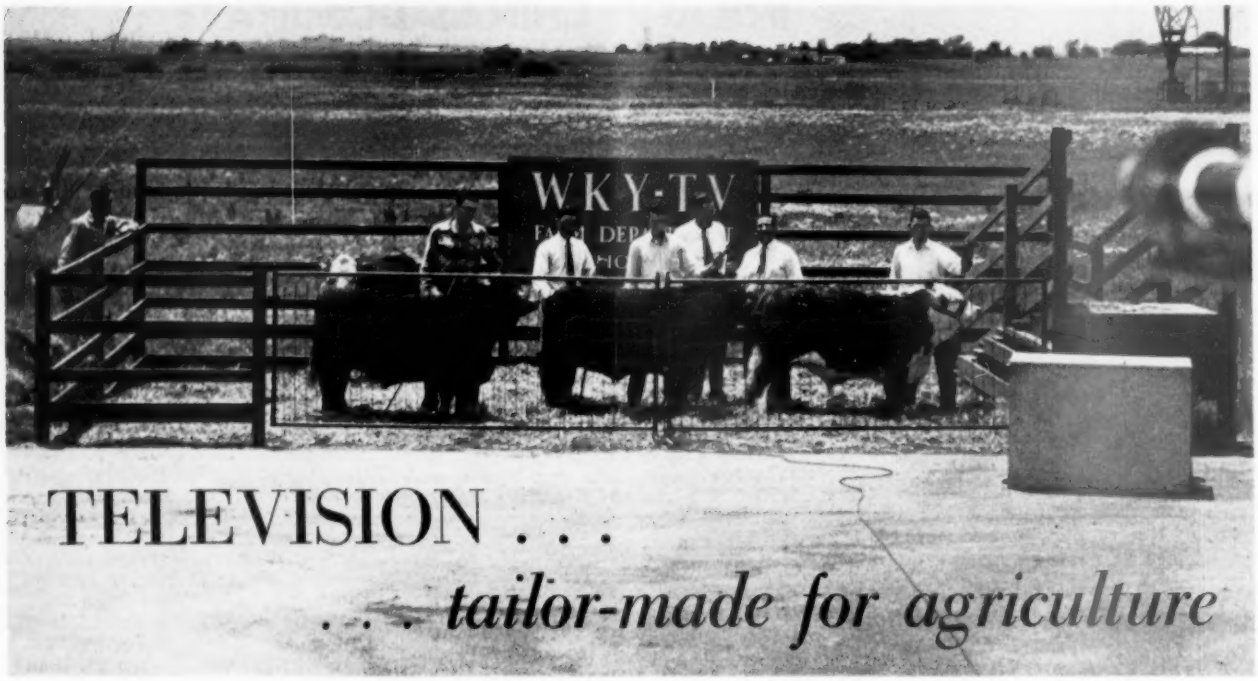


TELEVISION . . .

. . . tailor-made for agriculture

By Max Kirkland
Extension Radio Specialist
Oklahoma A & M College

● THE DEMONSTRATION method has always been the accepted method for the presentation of information in the field of agriculture. The motto "To Learn by Doing" has its counterpart in the expression "To Teach by Showing."

With the advent of television into the American scene, agriculture has come into its own as a good field for showing what "teaching by showing" can do.

To say that a thing is tailor-made is to say that it is designed to fit. Television is designed to fit the agricultural problem of getting the greatest amount of valuable information to the largest number of people with the least expense.

For many years, extension specialists have travelled millions of miles each year, demonstrating farming practices before groups of 10 to 1,000 farmers in an effort to make life on the farm more profitable and more comfortable. With one television program, a single specialist now can reach a half million people in a week and the required travel is much less.

First Program in 1949

The first agricultural television program presented by Oklahoma A & M College specialists was telecast over WKY-TV, Oklahoma City, June 10, 1949. Extension Entomologist Charley Stiles and J. C. Garrett, assistant horticulturist, gave a demonstration on spraying for infestation on ornamentals.

During the past year of 1952, extension specialists, county agents, home demonstration agents, and 4-H Club boys and girls have appeared on more than 200 television programs.

The latest available estimate of television receivers in Oklahoma lists 180,000 for the WKY-TV area and 134,000 for the KOTV area surrounding Tulsa. The prospective audience is over 300,000 people per week since the same specialist's program is presented on both TV stations.

Committee Plans Programs

Program planning is done by the television committee after discussions with the extension specialists and with the farm radio and TV directors of the two stations. Representatives from the extension information department make up the TV committee personnel.

Programs are scheduled for a period of six months. Topics are selected to conform to the pattern of information being used by specialists in their field work.

After the schedule is arranged, the specialists plan their program by requesting visual aids: Films, slides, charts, graphs, etc., then rehearsing with the radio and television specialists. Men and women specialists alternate weekly on these programs.

Farmer and homemaker guests are often invited to participate on the program. Occasionally, county agents will take part.

In addition to the regular weekly extension day program, which is telecast on both WKY-TV and KOTV, there is the weekly "Your Home Hour" program. This program features home demonstration club members and examples of their current program of project work.

Televise 4-H Club Work

Another weekly program is the 4-H Club show telecast every other Wednesday on WKY-TV and every other Friday on KOTV. These programs are 15-minute shows and feature demonstrations of 4-H Club projects and the work of 4-H Clubs in citizenship, recreation, and organization. Boys and girls alternate weekly.

Upon special occasions, extra programs are presented by extension specialists. An example of this is the "Prevent Grassland Fires" program staged during the dry summer and fall months; the "Soils Testing Laboratories" programs; and the "Save That Feed" show.

During the course of a year, almost all of the 40 or more extension specialists will appear one or more times on television.

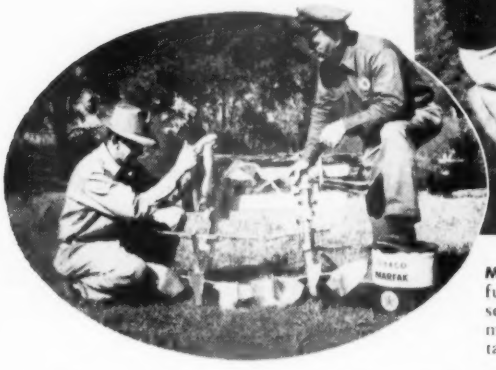
There is still some discussion as to the over-all value of television as a teaching and informing tool, but most of the men and women when asked to do a special, unscheduled program reply: "Give me a few minutes to gather up my aids."

Viewer response to these programs is very good. Many cards and letters are received each week requesting additional information and asking for bulletins and other material.

Whenever possible, live animals are

Invents rotary hoe to improve cultivation

E. F. Pitre (right) of New Iberia, Louisiana, the inventor, explains operation of the vertical-vaned hoe to John Curtis, prominent farmer. The hoe makes possible close cultivation without injuring the roots, according to Mr. Pitre.



Mr. Pitre gives bearing a shot of Marfak lubricant. Marfak ensures full lubrication protection — forms a collar around the bearing edges, sealing out grit and dirt. Marfak sticks better, stays on longer, won't melt down and run out or dry out. The implement is Mr. Pitre's horizontal rotary hoe. Texaco Man Floyd Folks is an interested observer.

USING the basic principle of the hand hoe, Mr. E. F. Pitre, of New Iberia, Louisiana, has developed two types of rotary hoes—vertical and horizontal, as shown above.

Some of the advantages claimed are closer cultivation, with adjustable depth of cultivation. Thus it is possible to cultivate a crop as soon as the plants begin to appear, breaking up the crust and speeding plant growth.

Mr. Pitre and the Curtis brothers, like farmers the country over, have found that *it pays to farm with Texaco Products.*

In all 48 states Havoline, the motor oil with a reputation of more than 40 years behind it, is the choice of leading farmers. Havoline is a Heavy Duty all-purpose oil, ideal for gasoline or Diesel engines and those using LP-Gas as fuel. It cleans as it lubricates, ensuring full power and economy from every drop of fuel. Pete Van Zee near Lynden, Wash., is pouring the Havoline as friendly Texaco Man E. A. Hofman looks on.

Friendly service with on-time deliveries, that's what farmers and ranchers want and get from Texaco Men. In addition, they get better performance, longer trouble-free life from farm machinery with Texaco Products. Texaco Man D. S. Spidle is delivering a tankful of Fire-Chief, the gasoline with extra *"Fire-Power"* for low-cost operation, at the Sandifer farm near Beaumont, Texas.

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Texaco Petroleum Products are Manufactured and Distributed in Canada by McColl-Frontenac Oil Company Limited.

Left—untreated onion; Right—treated with MH-40

Naugatuck nips storage growth in bud!

The United States Rubber Company's Naugatuck Chemical Division has good reason to believe it has dealt a death blow to destructive storage growth. The reason is a new Naugatuck chemical—a water-soluble salt containing 40% maleic hydrazide and called MH-40.*

Every grower knows the advantage of storing away part of a crop like onions until the market is more favorable. And every grower also knows the risk involved—namely, the sprouting, shriveling and wrinkling which can make that crop unsalable.

As far back as 1947, Naugatuck's research scientists came up with the first version of MH-40. Since then, working in cooperation with more than 250 experiment stations and other agriculturists, they have discovered hundreds of potential uses for this unique new chemical. One of these uses was for the inhibition of storage growth.

Today MH-40 is commercially available as a grass inhibitor and wild-onion killer. And it won't be long before it will be made available as a storage growth inhibitor, too! *U. S. Pat. No. 2,614,916

MH-40 is one more example of Naugatuck know-how at work, always striving to introduce new and better products to the agricultural field.

UNITED STATES RUBBER COMPANY
Naugatuck Chemical Division, Naugatuck, Conn.
producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides; Spergon, Phygon, Aramite, Synklor, MH, Alanap.

used on animal demonstrations to supplant or to supplement charts. The picture on the opening page shows the livestock pens immediately in the rear of Station WKY-TV's studios. The TV

With television, you can see a demonstration at close range. Here, complete with props and samples, are left to right, Sandy Saunders, farm director, WKY-TV; Bob Woodward, assistant extension agronomist, Oklahoma A & M College, and Harold Dedrick, assistant farm director, WKY-TV.

camera shoots the scene from the loading dock of the studio door.

Sometimes guests from other countries, in America studying agricultural extension methods, have been presented.

In Oklahoma we are sold on television for agriculture. More and more demands are being made for more and better programming. We are working on more attractive methods of presentation.

TV Will Reach Millions

With new television stations being built and going on the air daily, the future of agricultural demonstration looks much brighter and much easier. Although it takes a lot of planning and working to make a good program, it is the best method ever discovered to reach the millions of people.

Another important factor in the use of television for agricultural demonstrations is that the program goes into the city home, where the viewer may never have seen such a demonstration before. The city viewer has a big stake in agriculture too.

For good public relations, for good demonstrations you can't beat television. —*End.*

★

Our 25th Anniversary

Better Farming Methods is 25 years old this year.

It was in September, 1928, that a magazine, called Better Farm Equipment and Methods, was launched. It continued under that name until the Watt Publishing Company acquired it in 1944 and changed its name.

The September issue will be devoted

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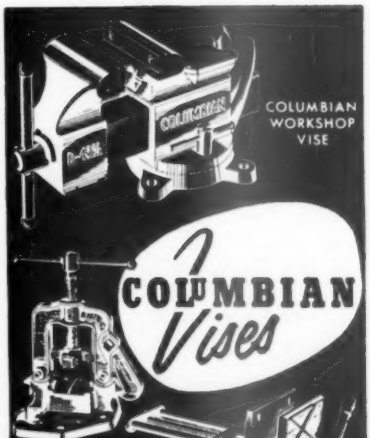

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to a review of the ag leadership field during the past 25 years. It will also feature the two great agricultural anniversaries that are being celebrated in 1953—the 25th anniversary of the founding of the Future Farmers of America and the 50th anniversary of extension farm demonstration work.

This is an issue that each of you will want to keep for future reference. Some of the authors who will contribute editorially to this great issue are Ezra T. Benson, Secretary of Agriculture; C. M. Ferguson, USDA Extension Director; Robert M. Salter, Chief, Soil Conservation Service; Dr. A. W. Tenney, executive secretary, Future Farmers of America; T. A. Erickson, rural consultant, General Mills, Inc.; Ed Bay, past president, NACAA; Dr. John Hannah, president, Michigan State College; and many others.

For a pictorial and factual review of the past 25 years in your profession, be sure to see and save the coming September issue of Better Farming Methods.

★

Carl G. Howard, right, professor of Agricultural Education, New Mexico A & M College, and Leon Wagley, president, New Mexico Vocational Agricultural Teachers Association, preview films that are being shown by the SVE filmstrip projector Wagley won while attending the Boston meeting of the National Vocational Agricultural Teachers Association. The Deming, N. Mex., vo-ag department is used as a training center for prospective teachers.

★

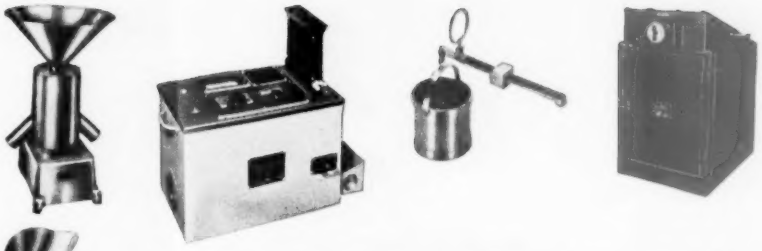
Equipment Bulletin

The National Barnyard Equipment Council has made available to agricultural leaders a little booklet entitled "Labor Saving Equipment for Raising Meat-Producing Livestock."

It is designed principally for distribution in the large hog-producing states as it deals particularly with hog equipment.

In the book are many ideas and suggestions for labor-saving equipment that is available to the farmer.

Those leaders desiring a copy of this booklet should write to the Council, 330 South Wells St., Chicago 6, Ill.



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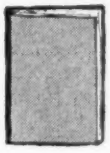

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TEACHING REMINDERS

June

"Storing Grain Properly"—Losses from grain improperly stored can cost more than the gains from proper storage. Have your students see that such losses are avoided by making them responsible that only ripe, dry grain—which is 12% moisture or under—is combined. They can also prevent insects in stored grain by complying with the following rules: 1. Clean bins as long before harvest as possible; 2. Remove all grain; 3. Sweep down walls; 4. Clean floors; 5. Spray with contact insecticides making sure to spray behind bindings and partitions; 6. Remove any sacks of feed which might have been stored next to bins; 7. Make sure grain is dry when stored and, 8. Fumigate at once if there is evidence of insect damage.

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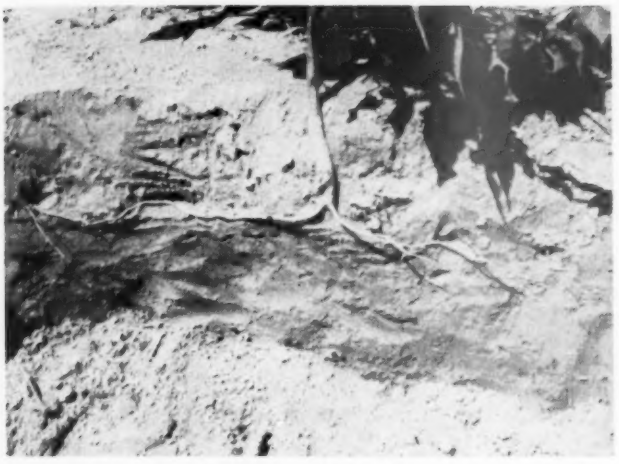
A visual demonstration of the water holding capacity of soils. On the left, little organic matter and rapid disintegration. On the right, a sample of soil taken from a meadow with high organic content.



This shows the effect of plow pan on the downward growth of plant roots. Notice that the roots of this cotton plant have spread out horizontally and do not penetrate the hard soil plow pan.

Use Pictures to . . .

TEACH farmers GOOD soil PRACTICES

By Richard Marshall
Soil Conservation Service
Fort Worth, Tex.

● A SOIL CONSERVATION Service technician was talking to a group of farmers about their soils. As he spoke in technical terms about water stable aggregates he saw their faces darken, noted their interest ebbing away.

Then the technician put two glass jars on the table before him. He filled the jars with water, inserted a wire basket into the top of each.

Into one of the water-covered baskets he dropped some soil taken from a field that had been row-cropped to death. The soil was in poor condition. As it hit the water it seemed to explode. It fell apart and the farmers could see it trickle down into the jar where it settled on the bottom like mud.

As he explained what was happening in simple language, the technician then dropped into the other jar a bit of soil taken from a native meadow.

Nothing much happened. The soil remained intact in the wire basket. It was in good physical condition. The farmers noted that the little clusters of soil did not break down, disintegrate in water. The water remained clear.

They were looking at water stable aggregates. It was then easy for them to understand what the technician meant when he explained that the soil aggregates from the meadow did not break up because they contained the by-products of decomposition of organic matter, sticky substances—dead roots and the tops of grasses.

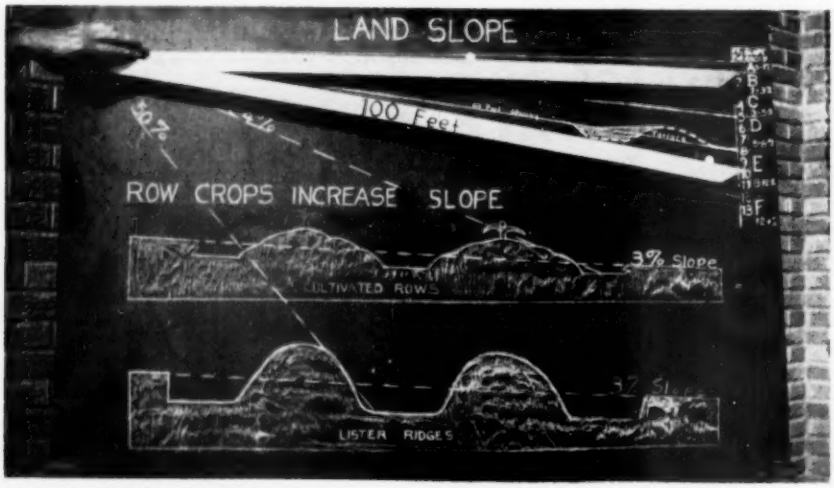
Seeing Is Believing

From this simple device, the farmers quickly and easily learned some fundamental things about their soil. The visual aid showed them, as the technician explained the process in common terminology, what happens when rain falls on eroded, depleted soil and what occurs when it falls on soil in good condition.

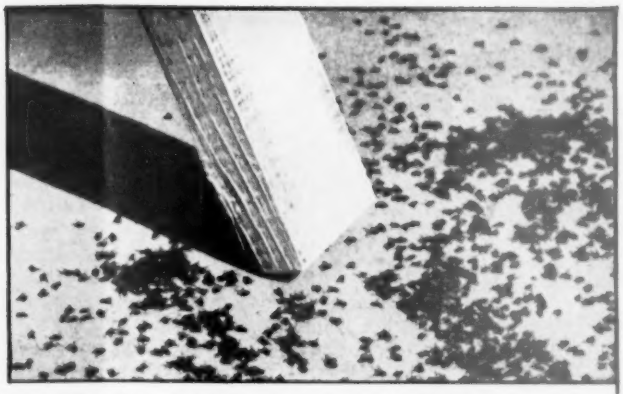
Like the rest of us, farmers learn best and quickest by seeing and doing. That's why we have adopted a series of visual aids to get across to farmers in understandable terms the very complex story of soils. The visual aids can be used indoors or out on the farmland.

Use Soil Profiles

Soil profiles make a visual aid that is used to good purpose in showing farmers the need of knowing something about another soil characteristic, depth. From this visual aid they quickly realize that



The meaning of slope in terms of soil and water losses is shown simply and effectively by this visual aid. The steeper the slope of the pivoted wooden troughs, the faster the marble runs down hill to the bottom. So it is with water running off steep land.



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Here's all you do: (1) Dilute ¼ to ½ pint of cane or corn syrup in sprinkling can with 2½ to 3 gallons of water. (2) Add 4 oz. bottle of ORTHO FLY KILLER. (3) Sprinkle the mixture on the floor, in the gutter, in the barns, walkways, feed rooms, milk rooms and creameries. This amount covers up to 3,000 square feet of floor area.

Watch your trail of ORTHO FLY KILLER. See how flies are attracted—how they land and die. Come back in an hour or two. If the fly population was heavy, your trail of bait will be literally black with dead flies. Follow label directions and cautions. Do not apply ORTHO FLY KILLER to animals under any conditions, or use around the house.

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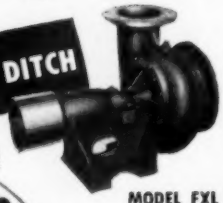

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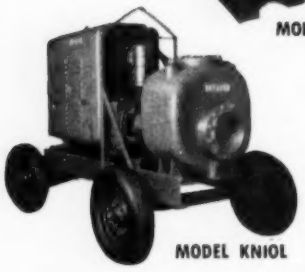

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depth governs the amount of water and fertility the soil can hold and the limit of root development downward.

They can understand the practical meaning of depth. If a given soil holds two inches of water per foot of depth, then a soil of the same kind three feet deep could hold six inches of water.

If a growing cotton crop uses an inch of water per week during hot, dry weather, the soil only one foot deep will need additional water after two weeks. The soil three feet deep, however, will hold enough water to satisfy the cotton crop for a longer period.

Soil Needs Organic Matter

That's a practical lesson the farmers can learn from the visual aid. From it they can figure out one of the best corrective treatments: Increasing the water-holding capacity of their soil by adding organic matter. An alternative is to grow crops having a low water requirement. The farmers can see that it is impossible to increase the depth of their soil.

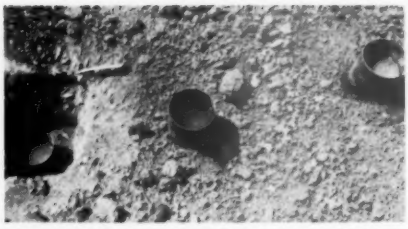
Soil profiles as a visual aid also call the attention of the farmers to texture, a characteristic they might not always think important. They can see that texture depends on the relative amounts of sand, silt, and clay in the topsoil.

This simple visual demonstration illustrates soil texture. Ordinary tin cans with perforated bottoms are placed over glass jars. In one can is sand, in the other is a soil having organic matter added. Water and colored fertilizer are applied. Both go through the sand into the jar. The clay soil with the organic matter holds some of the water and most of the fertilizer while the water runs quite rapidly through the sand.

They can note that texture is important because it influences the capacity to hold water and fertility. The texture affects the ease of tillage, less power being required to farm sandy land than hardland or clay soils.

Two ordinary cans with holes in the bottom can be used as a visual aid to compare the capacity of sand and clay to hold water and fertilizer.

The clay used is high in organic matter. Water and fertilizer, colored so that it can be seen, is poured into both cans. They pass through the sand quickly. Only a little of the water and practically none of the fertilizer gets through the clay.



Cans with holes punched in the bottom are filled with water to show water intake of soil below the plow pan, left, of the plow pan itself, and of the soil above the plow pan.

An effective visual aid to show the effect of slope on soil and water losses is a portable blackboard with two wooden troughs fastened at a common point. The angle or slope of the troughs can be varied.

Marbles are started down the troughs and the farmers can see for themselves that the marble rolling down the steeper slope gets to the bottom first. This might seem like an over-simplified device but it is not always a simple thing by talking alone to convince a farmer that water, and soil with it, will run down his sloping fields faster than it will go down his more nearly level fields. The marble business does the trick without words.

Discuss Land Needs

As the technician operates this visual aid, he discusses in understandable terms the research findings on the soil and water losses that occur on various slopes having different kinds of cover and the needs of the land for protection and improvement.

Chalk drawings on the blackboard also show how the slope gradient is increased or decreased by the kind of tillage tool the farmer uses.

Enlarged photographs make an effective visual aid to show various traits or conditions of the soil and the consequence of such traits and conditions.

Plow pan, that compacted layer of soil that restricts the downward movement of water, air, and roots, can be shown by blown-up pictures. So can the blunting effect the plow pan has on the downward growth of the roots of cotton and other crops.

Once farmers see this condition, they can readily understand why and how plow pan sharply reduces water intake.

Without such visual aids, discussion of soil conditions and characteristics could remain nothing more than an academic discourse for more listeners. The visual aids make the conditions and characteristics real and full of practical meaning that the farmer can put to immediate use.—*End.*

IDEAS that WORK

Fingertip Information

All agriculture leaders are interested in methods of saving time. A good reference file can be useful and efficient in locating material when needed for teaching, advising farmers or for other purposes.

I find that by filing all material by topics as I teach them I can make the best use of the material. By having a reference to all material available upon a topic filed in a common file, a look into this file tells me of all the material I have available upon that particular topic. It further helps to file all material by the same number, letter, or code regardless of the place filed.

For example, by filing all bulletins, charts, or slidefilms on fertilizers by a common number it is easier to locate the information on fertilizers even though it may be in several different files.

The bulletin file in the picture shows my system of filing experiment station reports and bulletins. The drawer near my right hand carries bulletins on swine production, the one near my left hand on corn production, and each drawer is labeled.—Jim Hamilton, vo-ag teacher, Audubon, Ia.

Do you have an idea that works? Better Farming Methods will pay a minimum of $5 for accepted ideas or teaching techniques that you have used successfully in YOUR work with FFA, 4-H, or farmers.

★

Officers of the newly formed Extension Specialists Association at New Mexico A & M College are, left to right, John M. White, extension editor, secretary-treasurer; Ivan Watson, extension animal husbandman, president; and Miss Tiny Faye Jones, associate state 4-H club leader, vice president.

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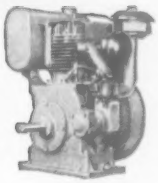
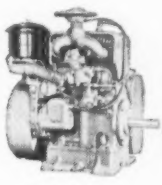
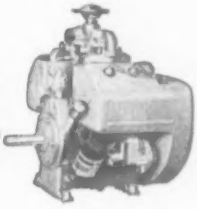
3 to 6 hp. single-cylinder models.



6 to 9 hp. single-cylinder models.



7 to 14½ hp. 2-cylinder models.



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Teacher's Farm Shop

Use A Radio Program to Publicize Your Farm Shop

By T. J. Wakeman
Teacher-Trainer in Farm Mechanics
Agricultural Engineering Department
Virginia Polytechnic Institute

● THE PEOPLE of our communities need to know more about the farm mechanics program of our departments. The more they know about our programs, the more they will benefit and the more favorable they will become in supporting our program.

The following is a suggested radio program that has been used. The blanks can be filled in for your particular state from the table listed below. Local names and special problems of your community should be emphasized.

Q. What is meant by farm mechanics?

A. By farm mechanics we mean all of the mechanical activities needed on the farm and in the home. These activities could be classified as specialized and unspecialized jobs. The specialized jobs require specially trained people.

What Can the Farmer Do?

Q. What are some of the unspecialized jobs you think a farmer could do?

A. Some unspecialized jobs could be grinding mower knives, making gates, repairing a grain drill, and adjusting the carburetor of a tractor. These are jobs the farmers must learn to do.

Q. Could you give me an idea of how these jobs could be classified?

A. Yes, I will give you the areas as we call them in the teaching field.

(1) There are the jobs in farm power and machinery. They deal with the adjustment, operation, and maintenance of machines such as a farm tractor, truck, combine, rake, baler, grain drill, mower, and grinders. (2) Jobs dealing with electrical equipment; milkers, coolers, freezers, heaters, driers, pumps, fans, and wiring. (3) There is another area of great importance called planning, constructing, repairing and the maintenance of all farm buildings.

Q. Are there more teaching areas?

A. Another important area is the farm shop area. The reason this one is so important is because the jobs done in the farm shop cut across all of the areas mentioned above.

Q. What shop work does a farmer need to do on a farm today?

A. The farmer must be capable of doing work in concrete, woodworking, tool fitting, cold metal, painting, farm forging, farm plumbing, and welding.

Q. Expand just a little on the farm shop area. Take one of the farm shop sections and tell me what are some of the jobs a farmer must do.

A. For instance, cold metal. He must learn to work with cold iron, cut threads, drill and tap holes, bend and straighten metal, remove stud bolts that have been broken off, replace sections in a mower knife, etc. We must remember that the farmer cannot afford to run into town every time these jobs come up. He should be able to do most of them right on the farm.

Q. What has brought about this tremendous amount of mechanical work on the farm?

A. One of the biggest contributing causes is the increase in machinery on our farms. According to the latest source of information we have had an increase in farm tractors from ..... to ..... in ..... (your state) since 1940. There are ..... tractors now where there was one in 1940 in your state. Other units of farm equipment have increased proportionately.

Another reason for the increase in machinery is that during

Statistical Data By States

	All Tractors		Expenditures for tractor repairs in dollars	Expenditures for other farm machinery repairs in dollars
	* 1940	Estimated ** 1952	* 1950	* 1950
Alabama	7,638	61,000	4,213,819	2,992,478
Arizona	4,129	11,200	2,739,883	2,151,456
Arkansas	12,564	80,700	8,180,090	4,299,149
California	55,191	277,400	28,023,363	21,291,612
Colorado	21,423	62,400	6,896,353	8,196,557
Connecticut	5,349	13,200	1,056,376	997,399
Delaware	2,661	7,375	719,820	616,319
Florida	7,703	28,000	4,344,079	2,810,595
Georgia	9,327	81,400	6,945,357	4,182,352
Idaho	11,103	49,100	4,964,803	6,314,824
Illinois	126,069	258,900	25,975,864	26,393,626
Indiana	73,221	172,700	14,060,330	13,767,769
Iowa	128,516	269,100	24,991,677	27,257,200
Kansas	95,139	157,400	18,999,616	20,567,710
Kentucky	11,927	76,500	4,674,748	4,656,340
Louisiana	9,476	46,850	6,019,207	3,178,641
Maine	8,093	17,950	1,498,509	2,081,058
Maryland	10,335	34,975	2,675,975	2,772,820
Massachusetts	7,335	16,150	1,062,241	1,145,577
Michigan	66,524	167,600	10,029,991	11,347,757
Minnesota	105,075	230,600	18,268,803	23,503,387
Mississippi	10,577	68,500	6,891,344	3,649,279
Missouri	45,155	146,300	11,764,193	10,931,244
Montana	22,587	52,200	6,309,777	7,767,990
Nebraska	70,761	142,000	14,416,831	18,449,704
Nevada	681	4,150	456,504	518,276
New Hamshire	3,129	7,950	356,081	355,546
New Jersey	12,920	29,800	2,652,685	2,756,483
New Mexico	5,832	18,950	2,548,771	1,713,203
New York	58,906	132,250	9,451,823	10,712,777
North Carolina	12,756	96,100	5,377,839	5,377,499
North Dakota	49,361	110,300	11,452,738	15,343,991
Ohio	89,999	203,300	13,476,669	13,317,263
Oklahoma	45,369	103,900	10,489,173	9,193,984
Oregon	17,077	64,500	5,483,296	5,213,853
Pennsylvania	54,842	139,250	9,071,946	10,619,436
Rhode Island	1,008	2,450	191,460	246,743
South Carolina	4,791	42,000	3,315,649	2,559,891
South Dakota	44,154	99,200	10,080,995	13,867,731
Tennessee	11,817	77,500	4,847,328	4,692,776
Texas	98,923	267,300	35,804,752	21,079,526
Utah	3,041	22,850	1,514,736	1,758,179
Vermont	3,566	12,250	702,894	1,150,900
Virginia	11,951	59,400	3,663,425	4,219,225
Washington	18,019	67,400	6,761,071	7,682,029
West Virginia	3,656	18,300	637,381	992,630
Wisconsin	81,195	191,500	12,150,649	18,166,692
Wyoming	6,534	18,800	1,815,328	2,228,329
Total.....	1,567,405	4,186,000	388,026,242	385,089,805

* Farm Facts and Figures
** Farm Implement News

these past 12 years there has been a decrease in the amount of farm labor available. With industry in general, and special defense plants competing for farm labor, there seems to be no reason to think the labor situation will improve.

Therefore, we can expect the buying of farm machinery to continue as long as the farmer is financially able to pay for it.

Farmer Has Investment

Q. Do you have an idea of how much money the average farmer invests?

A. No, the best idea I could give you would be to use an average situation in the ..... area. Let us use a 140 acre livestock farm. The farmer would have from 6 to 10 thousand dollars in buildings, 10 thousand in equipment, 10 thousand in land and 10 thousand in livestock. That is $40,000—$20,000 as I mentioned heretofore in machinery and buildings that come under the area of farm mechanics. This machinery figure of $10,000 alone is more than we paid for the whole set-up 20 years ago.

Q. Do you have any figures relative to expenditures for tractor and machinery repair for 1952?

A. Yes, we do, ... farmers paid ..... millions for tractor repair and ..... million for the repair of other farm machinery. That just includes the cash the farmers spent, not counting the repair work done at home.

Follow These Points

Q. What suggestions do you have to offer to a farmer for getting the most out of his farm machinery?

A. Let us use for this discussion the farm power and machinery problems. The farmer can get assistance by: (1) Keeping his farm machinery in proper adjustment by thoroughly studying the operator's manual, available for each machine he owns; (2) securing assistance from the local dealers; (3) getting help in the local commercial repair shop; and (4) help which can be secured in the local vocational agriculture departments.

Q. You mentioned the local vo-ag departments. What do they have to offer in the field of farm mechanics?

A. Let me state that the vo-ag program is strictly educational. By that I mean they learn while doing. They have farm shops that contain an average working space of 2,800 square feet, well lighted, and equipped with hand and power tools. The hand equipment usually is similar to that which a farmer can buy. The power equipment is similar to that a farmer can buy except it is larger than some farmers would need.

Q. Why is the shop equipment larger in the schools than a farmer should buy?

A. I would estimate the equipment is

(Continued on page 57)

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Oklahoma Youth Is Tops at . . .

2nd National Land Judging Contest

By Lee Stevens

Oklahoma A & M College

Members of the Washington county 4-H team proudly show their new watches to Johnny Pope, coach. They won these by placing first in the 4-H club division of the contest. Left to right, John Thornton, William Doenges, Pope, and Chad Bixler.

● "EXPERIENCE GAINED from land judging contests may change the whole picture in methods of buying and selling land," is what Paul T. Truitt, president of the American Plant Food Council, Washington, D.C., thinks of land judging. Truitt made this statement after watching the contestants in the second national land judging contest held at Oklahoma City, April 30-May 1.

Attendance Is Greater

Upward toward 2,000 contestants and observers from 15 states attended the two-day contest sponsored by Radio Station WKY and WKY-TV. Registration for the contest was considerably greater than last year when nine states sent contestants, according to Sandy Saunders, WKY farm director.

The contestants had as one of their objectives $1,000 in awards to the winners, but one got the idea from watching the contestants at work that they were more interested in what they could learn to take home to put into practical application on their own farms.

Most of the contestants were farmers or sons or daughters of farmers. Take for example, Sidney Spore, Kay county, Oklahoma. Spore won the top honors in the adult class of the contest. He is 40 years old and farms 1,000 acres of Kay county land in partnership with his mother and brother.

It was Spore's second attempt at the national land judging contest, having placed third in the national contest last year.

Spore, a former 4-H and FFA member, says he considers land judging a fine thing. He became interested in it last year when he participated in a Kay county contest.

The second national contest produced another repeat winner. Charles Stith, Buffalo, Okla., who was high individual in the FFA division, came back to win the same honors again this year. He was also a member of the Buffalo FFA team that placed first in the FFA team competition over 74 Oklahoma and 19 out-of-state FFA teams.

Members of the first place FFA team were Stith, James Adams, and Charles Ferguson. The team was coached by Marvin Best, FFA instructor.

Fairview FFA team placed second, Hydro, third, Prague, fourth, and Geary and Marlow tied for fifth place. All first five teams were from Oklahoma.

Pictured above with their coach is the Buffalo, Okla., FFA winning team in the national land judging contest. They are, left to right, Coach Marvin Best, Charles Ferguson, James Adams, and Charles Stith.

Oklahoma 4-H'ers Win

In the 4-H Club division of the contest, Oklahoma teams took the honors in the first places.

In first place was the Washington county 4-H team coached by Johnny Pope and made up of John Thornton, who was likewise high scoring individual in the 4-H division, William Doenges, and Chad Bixler. Canadian county team placed second, Pottawatomie, third, Kay, fourth, and Kingfisher, fifth.

There were 80 4-H teams in the con-

The contestants in the national land judging contest went to the field in supervised groups and made a study of the actual field conditions. Here a group checks the top and subsoil at one of the stations.

test with 66 coming from Oklahoma and 14 from 5 other states.

Oklahoma A & M College placed teams in the first and second place in the college division of the contest, with Arkansas placing third.

The top A & M team was coached by Dr. Fenton Gray of the Agronomy Department of A & M College.

The national land judging contest grew out of the annual 4-H and FFA soil conservation schools and contests held each year in Oklahoma since 1941. They have been supervised by Edd Roberts, extension soil conservationist. The national contests are supervised jointly by Roberts and Harley Daniels of the Red Plains Experiment Station at Guthrie.—*End.*

★

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No. 1 is placed over No. 4 for depth of body and for head type. Both No. 1 and No. 4 have very straight top lines but No. 4 has a faulty underline. No. 1 has heavier bone and stands wider.

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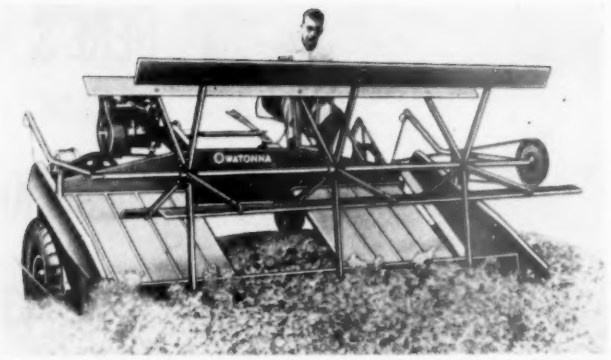
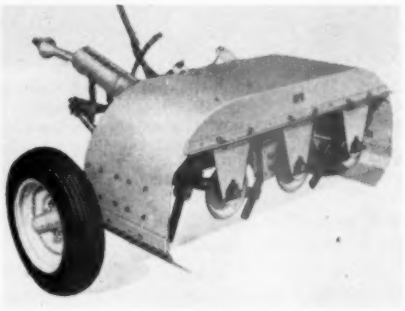
The new improved 1953 line of Meyer hay conditioners includes six models. This machine cracks the bulges or nodes at each hay stem branch so that the air can enter the stem and therefore promote more rapid drying. Made by Meyer Mfg. Co., Morton, Ill.



This is a new self-propelled windrower. Powered by a 13½ horsepower Wisconsin engine, it cuts the farm crop and places it in a neat windrow. Made by Owatonna Manufacturing Co., Owatonna, Minn.

The Allis-Chalmers Mfg. Co., Milwaukee, Wis., announces a new all-crop harvester which is available to farmers. It does an excellent job of harvesting most any crop—even hard-to-shell crops such as flax and clovers.

New Farm Equipment



This is the new power take-off shredder with advanced safety and mechanical features that has been introduced by the New Idea Division, Avco Manufacturing Corp., Coldwater, O.

The field harvester shown here, equipped with a hay pickup attachment, will chop hay from the windrow at a rate of 25 tons per hour. It is manufactured by International Harvester Company, 180 N. Michigan Ave., Chicago 1, Ill.

A capacity of 10 tons of hay per hour and three to eight bales per minute is claimed by the new Dearborn Motors Corporation hay baler. Additional information is available from Dearborn Motors Corp., Birmingham, Mich.

A new fully automatic wire tie baler, handling hay in a gentle manner to prevent shattering, has been announced by the Oliver Corp., 400 W. Madison Ave., Chicago 6, Ill.

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ALL BOOKLETS listed in this section are FREE to agricultural leaders. They are available from these individual companies and will be of help to you in your work of training and advising farm people. Full instructions on how to order these booklets are given in the box below.

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Farm Shop

(*Continued from page 49*)

used 80 times as much in the school shops as it would be used on the farm. The small equipment is not built for constant use.

Shops Have Equipment

Q. What power equipment do you have in the shops?

A. This equipment includes power saws, power grinders, jointers, arc and acetylene welders, cold metal equipment, forge equipment, power paint sprayers and equipment for performing the maintenance and repair jobs on all of the other farm machinery.

Q. I noticed you emphasized maintenance? Why did you do that?

A. I did that to emphasize the fact that teachers of vo-ag think a "stitch in time saves nine." They teach maintenance that will prevent most of the repair that costs so much. But when there is a major repair job like rebuilding a tractor engine—they think a tractor mechanic should do that.

Q. What else do these vo-ag departments have to offer for farm mechanics?

A. There are teachers of vo-ag that have been trained to teach the people to use hand and power equipment. They have been trained to perform maintenance work on all farm machines. All of the vo-ag teachers have been trained at college where factory trained farm machinery specialists assisted.

In these departments, one may find the latest references on most all farm mechanics problems in our area. This includes the operator's manuals of most farm machinery, plans for feeders, gates, hay racks, and farm buildings. There are references showing how to perform practically all farm shop jobs. The references on the home farm shop are the most popular.

One of the objectives of every vocational agriculture teacher is to assist his class members to establish a home farm shop. The home farm shop is designed so the farmer can have a convenient place to do his mechanical jobs at home rather than to lose time going to repair shops.

Q. Who can receive training in these departments?

A. All day vocational agriculture high school students, young farmer groups that attend the organized classes under the vocational agriculture teacher, and adults in organized groups that are directed by the teacher.

Q. When is this instruction offered?

A. Practically the year round.

Q. How would you go about enrolling?

A. See your local vocational agriculture teacher, your principal, superintendent, or your local school board member. (Name them.)—*End.*

..."That Reminds Me"

Shocking . . .

The travelling businessman booked the last available space on the sleeper plane from San Francisco to New York. The dear old lady just behind him in the line seemed about to burst into tears as she told the man at the ticket window that she absolutely had to arrive in New York on time to see a sick relative.

The businessman, deeply touched, gave up his ticket, and went to a telegraph office to wire his firm.

His office was amazed next day when this telegram arrived: "Will be day late. Just gave birth to an old lady."

Permission Granted . . .

The buck private and his girl were out riding in the country on horseback. As they stopped to rest, the two horses rubbed necks affectionately.

"Ah, me," said the private," that's what I'd like to do."

"Well, go ahead," answered the girl, "it's your horse."

Holy Mackerel . . .

Physician (to elderly mammy): "If you ever have another baby it will be a miracle."

Mammy (to husband): "Doctah said eff'n Ah has another it'll be a mackerel—an' dat's what Ah gets foah ma'yin' a fisherman!"

Bargain . . .

"Will you let me kiss you if I give you a penny?" asked the little boy's aunt.

"A penny!" he exclaimed. "Why, I get more than that for taking castor oil."

Out of the Pan, Into the Fire . . .

She was the kind of woman who could be relied upon to say the wrong thing wherever she was. At a dinner she turned to her neighbor and said: "Doctor, can you tell me who that horrible looking man is over there?"

"I can," replied the medical man. "That is my brother."

There was an awkward pause while the woman racked her brain for something to say. The doctor was enjoying her discomfiture.

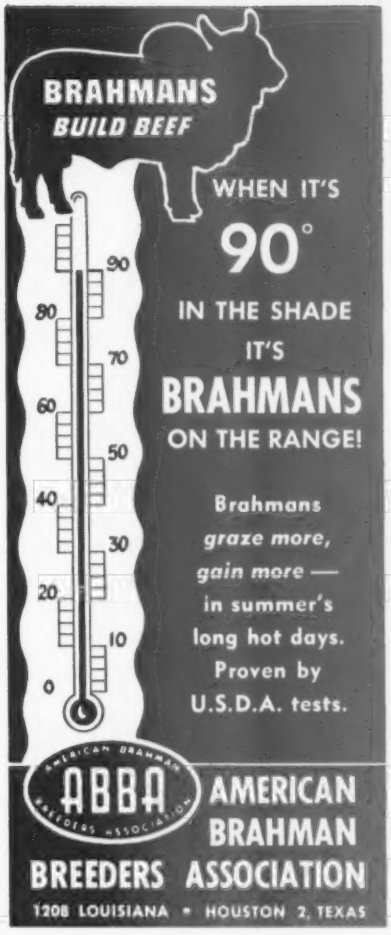
"Oh, I beg your pardon," she stammered, blushing. "How silly of me not to have seen the resemblance!"

Wasted . . .

A man had met with an accident and was carried into his home and a doctor summoned. When he arrived and started to take care of the patient, the agitated wife asked: "What's that stuff you're giving my husband?"

"An anesthetic," replied the doctor. "After he has taken it he won't know anything."

"Then don't give it to him," the wife exclaimed. "He doesn't need it."



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BETTER FARMING METHODS

Sandstone Building

Mount Morris, Illinois

For What It's Worth

By HERBERT L. SCHALLER, Editor

Economy Is Painful

Economy is hard to take. Once you are accustomed to receiving certain benefits in a specific amount, any suggested reduction is resisted.

So, even though the majority agrees that economy in government is necessary, human nature dictates that any group of people resents such economy being taken at their expense.

So it is in the vo-ag field. The thought of any reduction in federal funds for vocational agriculture is resented. And then, when the reduction suggested amounts to 30 percent, the bottom seems to drop out.

Let's take a brief look at our vo-ag program in respect to funds.

First, it seems unlikely that the full 30 percent will be slashed from available funds for the fiscal year 1954. With the mounting pressure of individuals writing to their Congressmen, plus the efforts of the National Vocational Agricultural Teachers Association, and state staffs, a certain percentage of the proposed cut probably will be reinstated.

The vo-ag teachers who are interested in helping to restore appropriations for their program should obtain the name of their Congressman and Senators and write directly to them.

At this point, I would like to make some general statements in regard to this problem.

First, maybe a cut in appropriations for vocational agriculture would do us good.

I have often heard the statement made by administrators and vo-ag teachers alike that "if we had more *money*, see how much more we could do."

This statement, in itself, reflects a poor attitude, it seems to us.

Money in itself never made a good program.

Perhaps the reverse might be true. With less money, and forced to overhaul our program of education, we might have a better, more coordinated, and a more far-reaching program than we ever attained before. After all, necessity is the mother of invention.

Second, let's not kid ourselves. There is some fat that can be fried out of our program too, without loss of effectiveness.

Whether in education, business, professional work, or in any organization you can name, never is a period reached where more efficiency cannot be introduced at less cost and a better utilization of the funds provided.

The vo-ag education program is no exception. If everyone concerned were to sit down and honestly appraise the program from beginning to end, I think it might be surprising the amount of money that could be put to better use.

Third, let's not be too pessimistic.

In Fred Bailey's Washington News column this month, he makes the statement that vo-ag specialists tell us that a cut such as proposed would require about the same percentage of reduction in the number of vo-ag teachers and programs.

I should like to take that statement with a grain of salt, believing that in part it is for consumption of those who can be responsible for restoring some of the appropriations. On the other hand, there are many in the field who might actually believe that such a reduction in appropriations would so reduce the effectiveness and work of the vo-ag education program.

I don't want to believe that statement and take it at its face value. I hate to think that a certain percentage cut in funds will reduce in direct proportion the number of vo-ag teachers and programs.

If it does, it is a sad commentary indeed on the entire vo-ag program.

Certainly the leadership in our vo-ag program has enough ability and foresight that if a cut in funds should come, it could in time adjust the entire program to compensate for a reduction in appropriations.

We need some Federal assistance. We need a unified program throughout the 48 states. We need administration of such a program.

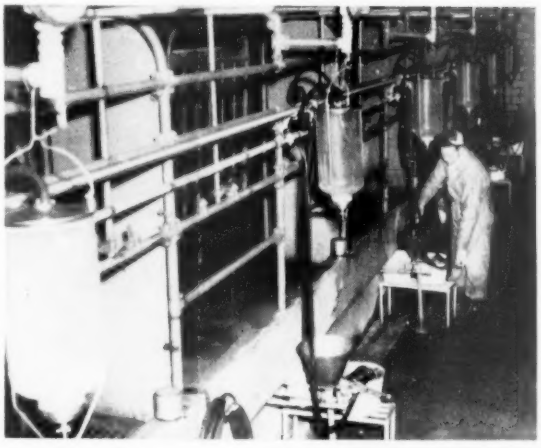
But, if through the years our program has not gained enough strength, recognition, or importance so that we adjust ourselves to smaller appropriations from a Federal level, meet those adjustments through a stronger state program and a more efficient system of administration and management, then as educators we seem to be failing somewhere along the line.

HLSchaller

TAKE A TIP FROM THIS PRODUCER:

"Our Stainless Steel bulk tank takes the work out of loading 400 gallons of milk"

—**OLIVER KEITH,** Manager, Rockacres Farm, Lewisburg, W. Va.



OLIVER KEITH, manager of Rockacres Farm, checks the quantity of milk in the 500-gallon storage tank which is lined with Stainless Steel. Pick-ups are made every other day.

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